THE JOURNAL OF THE
AMERICAN INSTITUTE OF ARCHITECTS

Volume XIII September, 1925 Number 9

Beauty That Was Skin-Deep

A Study of the Byzantine Idea

I

THE HISTORY of building construction is the story of an age-long struggle to enclose the greatest possible area with the least possible support. The wider the free spans, in any structure, the slenderer its piers, the more desirable that structure has proved to be.

The Egyptians, building with roofs of stone, enclosed nothing better than a dense forest of columns, hardly available for many uses, rooms, for example, like the Hypostyle Hall of Karnak (Fig. One). The architects of Mesopotamia achieved little more in this respect —as witness the proportionately narrow rooms of the Palace of Sargon at Khorsabad (Fig. Two). Even though they may have roofed with that same vault construction which the Roman engineers afterward employed, they do not seem to have made much out of it—possibly because they were not the engineers that the Romans were—possibly because they never had the infinite resources to draw upon. For engineering skill, just the opposite of architectural skill, develops most rapidly in times of profligate prosperity.

The builders of Greece frankly eschewed the use of masonry as a roofing material—in spite of the fact that they used it exclusively for support and enclosing walls. They understood simple truss forms, and by their means were able to span just such distances as we span today with our simple wood trusses—thirty to forty feet. (Fig. Three). Beyond this they did not go.

It was the builders of Imperial Rome who made the first noteworthy advance toward the goal of building construction. For such modest enclosures as those of the Greek temple plan would hardly satisfy the architectural appetite of the Cæsars. They demanded interiors more imposing—more befitting the dignity of the greatest of empires. They not only desired such imposing interiors, but they had the means to satisfy that desire. For the Romans were able engineers; and they had the resources of the world behind them. And it is a by-word of our present generation, that if you give an engineer money enough he can do anything.

The lower plan in Fig. Three shows what these Roman engineers did succeed in doing, in comparison with the truss-builders of the Parthenon. They took up once more the arch principle of Nineveh; and with it, and with the unprecedented wealth and organization at their command they flung great vaults, like this of the Basilica of Constantine, across clear spans of eighty feet or more —vast enclosures that towered to the height of twenty men, and roofed an area as long as a city block.

They not only understood and employed such simple applications of the arch principle as the barrel vault and the dome, but they devised new and more ingenious ones. They achieved a most significant device, for example, when they intersected two, or three, or more such vaults —as we find them doing in this same plan. For by this arrangement, by playing the horizontal thrusts of one arch against another, they were able to substitute square piers and transverse buttresses for the long prisonlike walls of Khorsabad. Because of the infinite compressive strength of masonry, such piers were just as capable of carrying four loads as one; and by their use the proportionate amount of support was cut as it had never been cut before. To measure this, it is only necessary to compare the black in the plan of Fig. Two with that in this present plan.

To this adaptation of the arch principle the builders of Rome added still another—the use of half domes as buttresses against the thrust of whole ones, as found in early drawings of the Temple of Minerva Medica. (Fig. Four.) They devised other adaptations as well. In brief, through their thorough understanding of the theory of the arch, and their ingenious application of this knowledge, they evolved an entirely new structural system—the first new one in recorded history—a system destined to go on developing through the centuries until it came at last to fruition in the perfection of Santa Sophia, and of Amiens.

The Greeks did not suffer from the megalomania that impelled the Romans. They produced no buildings of any great size. They made no considerable contribution to the engineering of building. And if the Romans

THE BATHS OF CARACALLA IN ROME
"Architecture on a scale unknown to the Greeks"

had not had their heads turned by their fabulous wealth and power, it is conceivable that they too would not have attempted such vast edifices. In such case, the new structural system, which proved to be the basis of two great styles, would have remained unborn. Therefore, whatever later centuries may have thought of that great world empire, however much they may have deplored the overweening ambition and love of ostentation that were so much a part of the Roman nature, nevertheless they would have had to acknowledge that out of so much palpable evil came one great good, which could not otherwise have resulted.

II

The cut-stone architecture of the Levant and the wood architecture of the Orient, diametrically different as they were, had one thing in common: their walls and piers were homogeneous.

The stone that showed on the outside of the Levantine temple was the stone of the structure itself. The wood that showed on the face of the Far Eastern building was the actual frame of that building. And what was true of the exterior was equally true of the interior—the same stone and the same wood ran straight through the wall.

But the stone one saw on the face of a Roman building was not a part of the actual support. It was only an architectural clothing laid over that support, a support which itself was built of a rough material that was not intended to be seen. Roman construction, therefore, was not homogeneous. In this respect it was fundamentally different from Greek, or Japanese, or even Gothic.

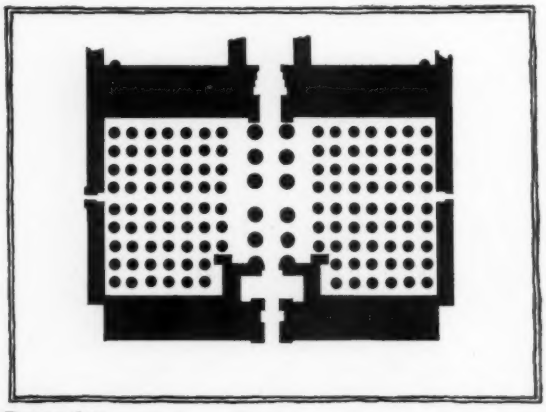


FIGURE ONE

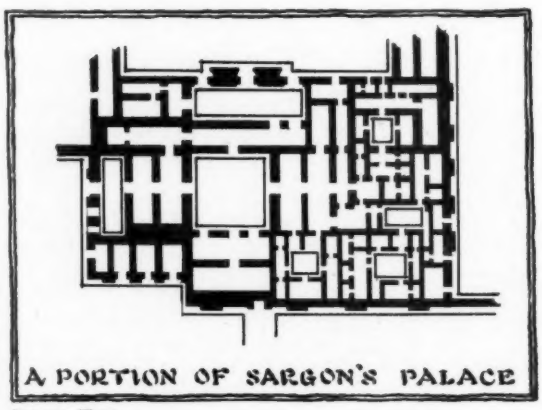


FIGURE TWO

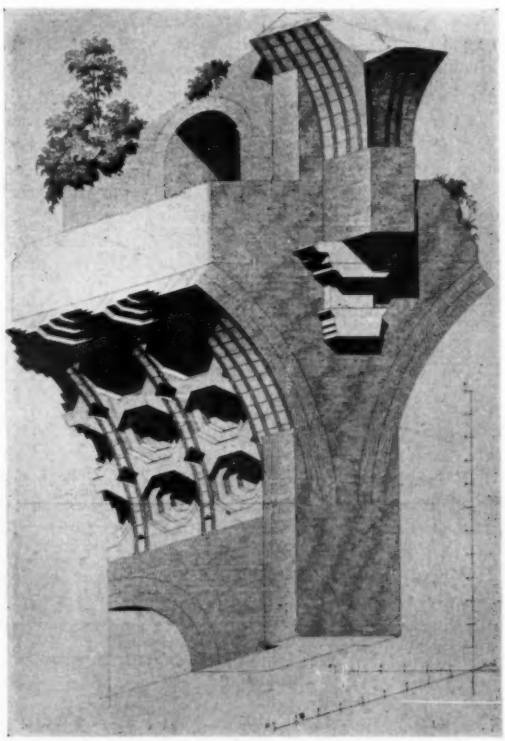
To those who have spent much time in the contemplation of Greek or Gothic architecture, this Roman system of construction seems like insincerity. But it need not be insincere.

As a matter of fact theirs was an eminently reasonable way to build. Their rough masonry had all the strength and durability required of it—too much, in the opinion of those who have since tried to demolish it. Piers and vaults of such construction were far less costly than ones of solid marble would have been. The material would cost less, obviously, and labor would cost less, for a rubble interior could be built up roughly and speedily, without the care and time that cut stone would require. Furthermore, the brick and rubble and cement that went into this rough work were directly at hand. Such construction was, therefore, economical, reasonable, and straightforward—it was good engineering.

We architects of today can well appreciate this, for we, too, are building in rough work and facing—whether our structure be steel with curtain walls, or reinforced concrete.

III

To assure one's self that this architectural clothing of the Roman structures was nothing more than clothing, it is only necessary to see such present remains as those of the Basilica already mentioned, or the Baths of Caracalla. A substantial part of their rough work is still able to stand of itself, in spite of the fact that its facing has been entirely removed. Even the engaged columns of these great interiors apparently contributed nothing to the support of the actual vaulting under which they stood, for these shafts are gone long since, and the rough vaulting remains, quite self-sufficient, corbeled out from the mass of the rubble pier.



ROUGH WORK OF INTERSECTING VAULTS, AND OF COFFERING, IN THE BASILICA OF CONSTANTINE IN ROME

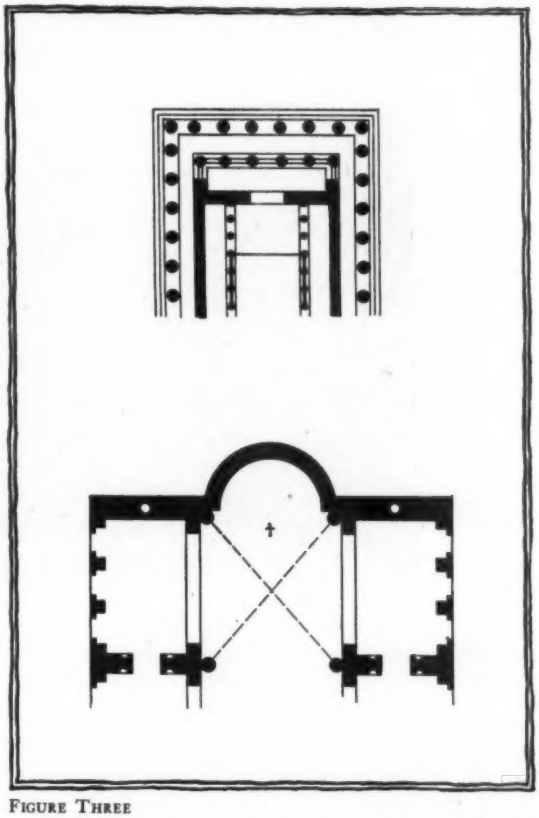


FIGURE THREE

Inasmuch as this clothing was not essential to their structure, it is evident that the imperial architects did not at first know how best to handle it. In their great baths and basilicas they began by putting it on thick enough, in places, to stand by itself. It was only by degrees that they came to recognize this method as a wastefully extravagant use of finishing material, and a contradiction of the economy practiced in the engineering which it enclosed.

These architects did not at first appreciate the fact that the sole function of the facing was to conceal and to beautify the unlovely rough work underneath, and that for this purpose an inch would be as good as an ell, and much less expensive. In short, their new structural system was no longer crustacean by nature, as was that of Greece and Egypt, but vertebrate; and yet they continued for some time to carry along with them the encumbrance of the old shell.

They began also by ornamenting this architectural clothing with the forms borrowed from their chief source

THE BATHS OF CARACALLA
"The 'orders' of a trabeated system used as decoration for the new Roman arcuated system"

of culture, Greece. In the study, *Pier and Beam*,[1] we have already considered how each of these Greek architectural forms was the glorification of an essential structural member of their pier-and-lintel system. But these details, when applied as surface ornament to Roman rough work, bore little or no relation to the new construction; and we might have found, in the interior of the Roman baths, cornices that were not required for shelter; columns and entablatures that had nothing to support; capitals, bed-moulds, and other corbel forms, where there was no structural need for corbels. For in the first flush of their unprecedented prosperity, these Latin designers were not mindful of the inconsistency and the consequent extravagance in their use.

[1] JOURNAL, February, 1925.

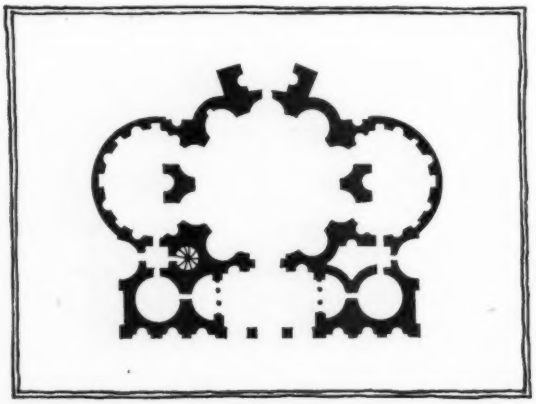


FIGURE FOUR

And finally, because of the very thickness of the shell with which they enclosed their engineering, and because of the bulkiness of these foreign architectural forms with which they ornamented this shell, the architects of Rome so confused and concealed the proper lines of this engineering, that its own inherent beauty, and strength, and ingenuity, were not apparent in the completed work, which was a distinct loss, since to any one having the real instinct of the builder no aspect of an edifice can compare with the appearance and assurance of the true structure that holds it up.

This true structure is fully apparent in the Greek and the Japanese temple. It is the charm of the Gothic cathedral.

And the ideal Byzantine edifice is nothing but structure, even to its roof. (Fig. Five.)

And in its nude state the rough work of the Roman bath or basilica would have had much the charm of the later Byzantine. (Fig. Six). And it is conceivable that some, at least, of the engineers working on it may have begrudged that unrelated architectural treatment with which they were required to overlay and to conceal its own expressive form, just as some of us today contemplate regretfully the aspect of our own clean, strong, reinforced concrete skeleton as its more or less meaningless architectural clothing is applied.

IV

Even from our student days—thanks very largely to Mr. Charles Herbert Moore—the Gothic idea has been to us a simple, a living, a comprehensible, and therefore

THE STRUCTURE OF SANTA SOPHIA
IN ITS MODERN SETTING

an inspiring, thing. But the Byzantine idea had been, until recently, an intangible one.

We had learned to recognize the latter by separate disjointed characteristics—pendentive, dome, impost, block, marble plating, and mosaics. We had identified it with absence of ornamental form, and prevalence of color. But we had never been told, we did not know, that all of these separate characteristics were, in reality, intimately related—that they were all of them nothing more or less than different phases of one fundamental characteristic.

It was not until we present-day builders, like those of the declining Roman empire, were compelled to count the cost of our own architectural clothing; it was not until we began to observe our own borrowed architectural forms beginning to flatten out in successive buildings, and to die back into the walls that they adorned—as members of a living organism atrophy from disuse—it was not until then that we came to a realization of the truth underlying Byzantine architecture.

For the Byzantine idea, like the Gothic, is not, after all, a code of lifeless unrelated rules. It is, instead, a lively state of mind. It is nothing but the practice of the conviction that beauty is but skin-deep. Mosaic encrustation, marble plating, absence of moulding and prevalence of flat bands; in short, all the codified characteristics of Byzantine—with the exception of the pendentive—are all of them nothing but different manifestations of this conviction.

We have said above that there need be nothing insincere about the Roman innovation of clothed construction. Nevertheless, as the Romans first used it, it was insincere. For in the handling of that clothing, in the thickness in which they put it on, in their use of engaged orders and free-standing columns—they were trying to make believe that it was something more than a covering—that it was construction of itself.

There was no æsthetic sin in clothing a pier of inferior material; the sin lay in denying that the clothing was only clothing.

And the artistic merit in the Byzantine idea lay in the hearty acknowledgment of this clothing, and the instinctive appreciation of the truth that, as clothing, it should only enhance, without concealing, the greater beauty of the form beneath.

Therefore, in their logical development of the roughwork system, we find that the useless decorative columns of earlier days have been dropped out, since they did not in any way explain, but only served to hide, the engineering underneath. If the builders of the later em-

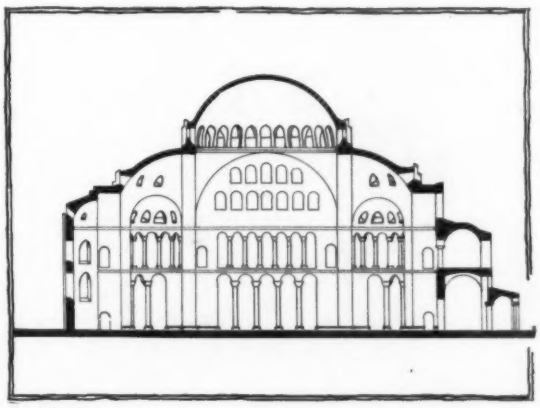


FIGURE FIVE

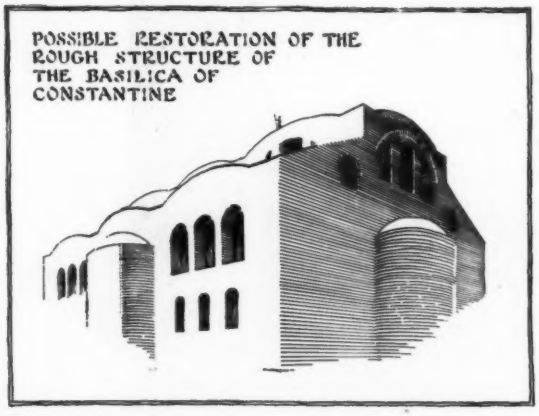


FIGURE SIX

pire were better artists than their predecessors, they were no whit poorer engineers. (They themselves added the pendentive to all that their forbears had achieved.) First and foremost, they were builders. And they held it of first importance that the expressive structural forms which they used should be the thing of paramount interest in the edifice. (Fig. Five.) Everything in the way of surface treatment that detracted from that structural form, everything, in fact, that did not serve to enhance that form, had to go.

As it was developed in the older column-and-lintel construction, the moulding was largely a corbel feature, supporting the overhang of a cornice, or the coffering of a stone ceiling. And as it had no such purpose to serve in a rough-work system, it was natural that it too should tend to disappear, being replaced by flat bands of colored marble. In the same way other architectural features that had lost their significance were done away with, and other new features were developed instead, which would call attention to and enhance the characteristics of the new construction.

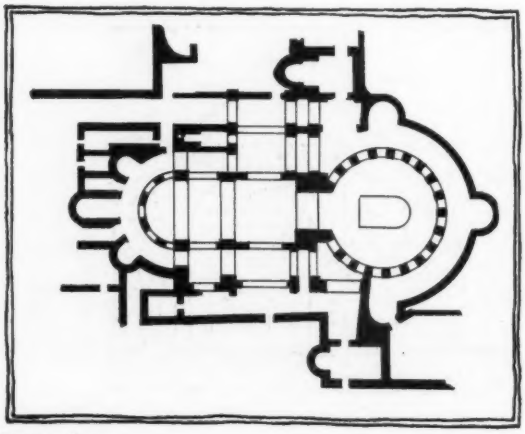


FIGURE SEVEN

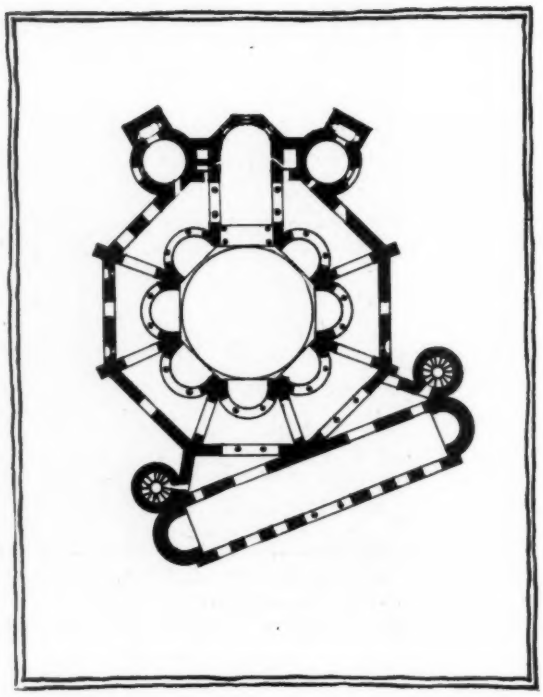


FIGURE EIGHT

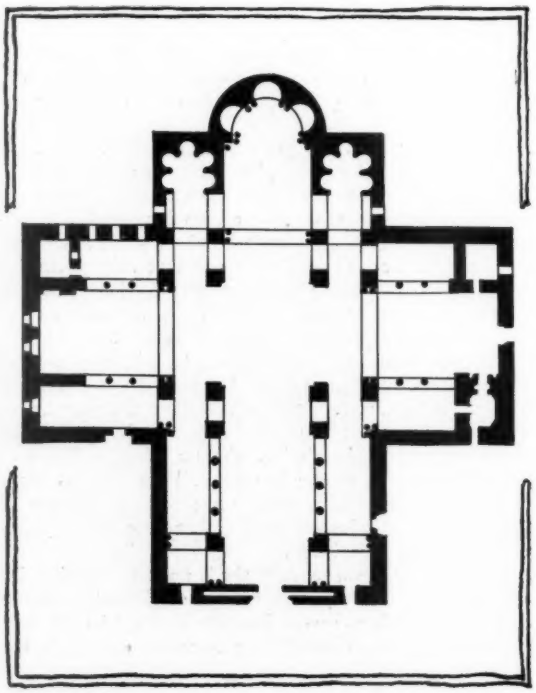
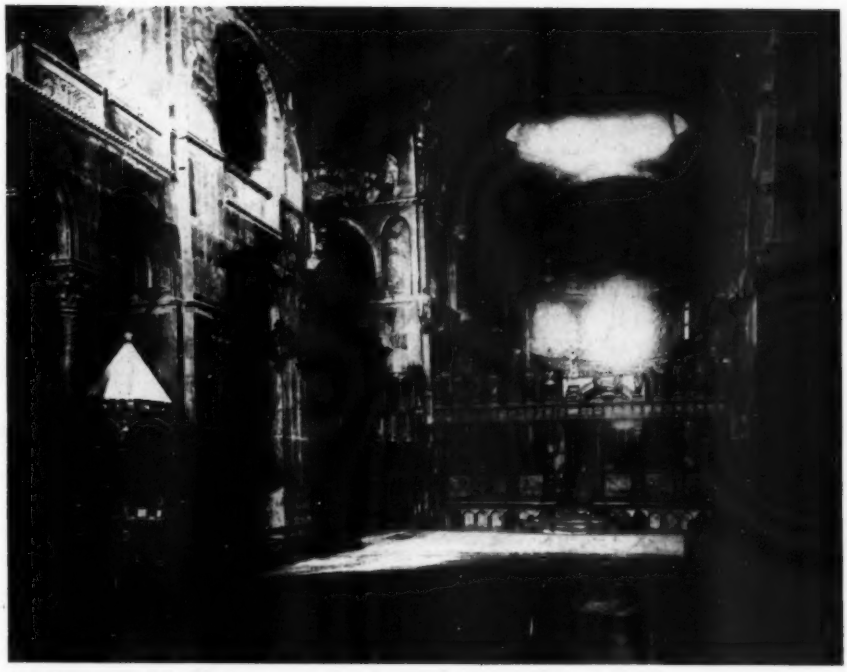
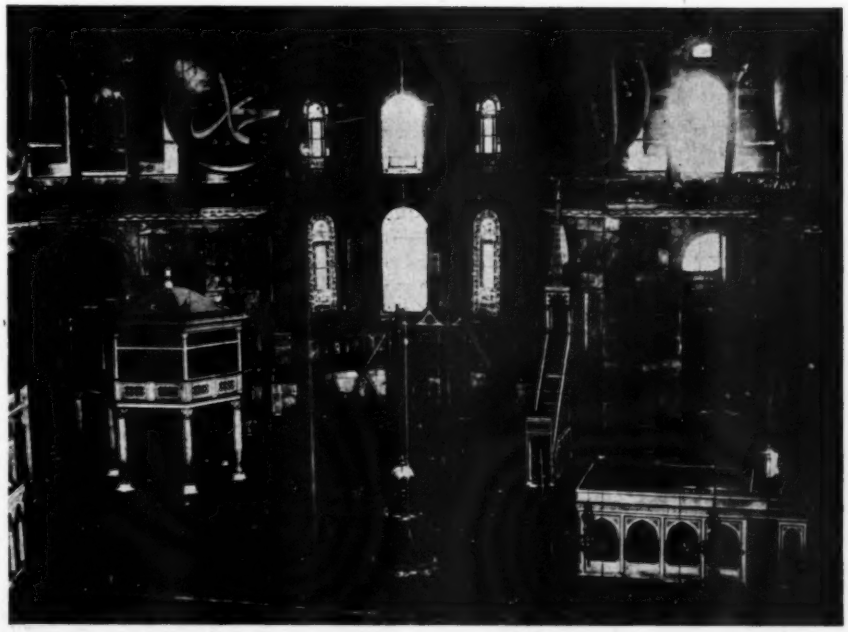


FIGURE NINE



THE INTERIOR OF SAINT MARK'S



THE INTERIOR OF SANTA SOPHIA

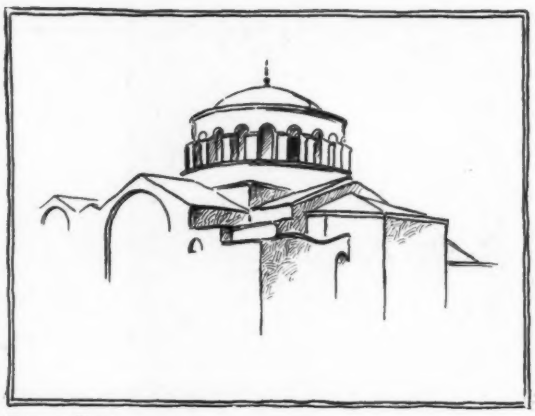


FIGURE TEN

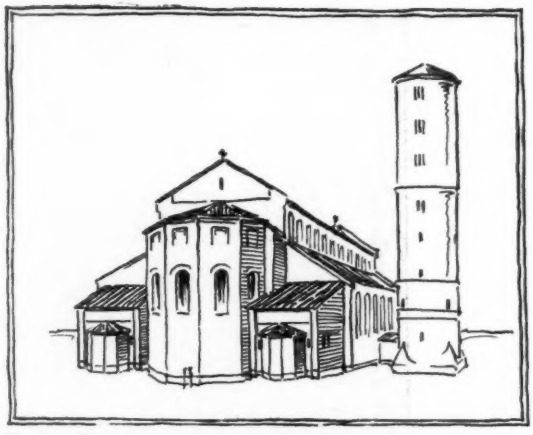


FIGURE ELEVEN

V

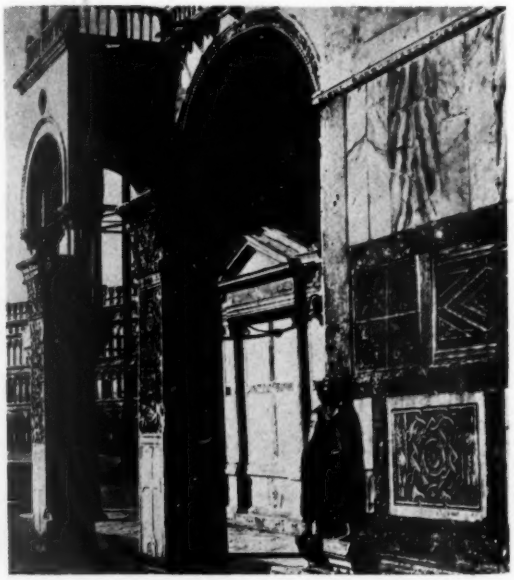
But what are the characteristics of such construction? With this clothing reduced to a mere surface covering, divested of all form in itself, it is evident that it must borrow its form from the structure that it covers, just as the skin of our own arms is entirely dependent for its modeling upon the anatomy beneath.

It is equally evident that no delicate forms could be executed in the rough work that constituted the Byzantine engineer's proper building material. Whatever forms he could devise would have to be broad, and big, and bold in their handling, a truth which naturally resulted in making his structural design the most masculine that the world has known. Even if he could have executed petty broken surfaces in this rough work, he would have found it irksome to encase them in their finish. Even such coarse detail as is seen in the rough cofferings of Constantine's Basilica did not appear again in the barrel vaulting of Saint Mark's.

Therefore, what could not be done in a small way in the modeling of the late Roman edifice was done in a big way. It was not the ornamentation of the structure that was modeled, but rather the structure itself, with the result that no other style of architecture has produced such varied and interesting plans, sections, and general masses.

We know little about the structural compositions of any Greek edifices except the temple. The traditional shapes of Japanese buildings are few in number. Like

MARBLE PLATING ON THE INTERIOR OF SANTA SOPHIA



MARBLE PLATING ON THE EXTERIOR OF SAINT MARK'S

those of Greece, they are rectangular and elementary in form. Occasionally we stumble upon a drawing of a Gothic vaulting system with the roof removed—that steep roof that was deemed so necessary to protect this vaulting from the rigors of the Northern winter—we run across such a picture, and find ourselves wishing that that interesting structural pattern might have remained exposed outside, for us to feast our eyes upon. For the upper reaches of the mediæval cathedral were beautifully modeled. And yet, even in this wonderful type, the plan departed very little from the rectangular. After all, for the utmost in structural modeling, in both section and plan, we have to turn to the Byzantine.

Let us consider in this respect such a varied succession of plans as those of Minerva Medica (Fig. Four), and the Church of the Holy Sepulchre (Fig. Seven), which were both, after all, part of the Byzantine idea. Let us consider San Vitale (Fig. Eight), and Saint Mark's (Fig. Nine). Or let us compare such masses and sections as those of S. Irene (Fig. Ten), S. Apollinare in Classe (Fig. Eleven), and Santa Sophia (Fig. Five). Let us observe, not only their great variety, but let us note also how closely their finished form, both inside and out, coincides with their structural form.

And it is interesting to find further that as the encumbrance of the early architectural clothing was cleared away, and the structural masses remained fully revealed, these masses began to take on more pleasing and more studied proportions. The rough structure of the Basilica of Constantine, for example, may have foreshadowed the later Byzantine forms, but its proportions, the relations of its lower vaults to the higher, of its lesser parts to the greater, are not the carefully studied relationships of Santa Sophia, for example. And in comparison with later work, its very silhouette is angular and abrupt in its transitions. (Fig. Six).

THE BYZANTINE STRUCTURE OF S. VITALE IN RAVENNA

THE BYZANTINE IDEA IN THE CAPELLA PALATINA, PALERMO

But these ungainly proportions, these abrupt transitions, have been refined out of the structural shape of the later buildings—in them there is a beauty of proportion and line rarely found elsewhere in such big masses. And if design should, as we are taught, and as we devoutly believe, begin with the great masses of the building, where better can one turn for inspiration than to the work of these engineers of the Christian Empire, who gloried in their structure, and glorified their structure, to the manifold subordination of everything else?

VI

Even if the surface treatment of the Byzantine building was completely subordinated to the rough form within, it lost nothing in consequence, but rather gained. Solely because it was kept so thin, it proved economically possible to make it of costly materials—precious marble, and beautiful mosaics.

Marble plating, in our minds, is inseparable from Byzantine work. This is what a Byzantine interior means to many of us. But this plating was not confined to the interior. It was intended to embellish the exterior as well. To this day, the outside of Saint Mark's is covered in this way. And so, at one time, was Santa Sophia.

To quote briefly from the monograph of Lethaby and Swainson: "Some of the exterior was doubtless cased with marble like Saint Mark's; indeed some of the marble plating remained in Salzenburg's time. 'The walls outside,' says another, an anonymous writer of the 12th

GABLE-MOSAICS ON THE EXTERIOR OF SAINT PAUL'S WITHOUT THE WALLS, ROME

century, 'were covered with large and valuable stones.' "

As in the days of the Cæsars, these later builders found the material for their rough work ready to their hand, whether in Rome, or in Byzantium, or Ravenna. But the covering with which they adorned the structure—just because it was in such thin plates—they could afford to import from the ends of the earth.

And, since it was no part of the structure itself, they could wait decades for it if need be. To quote from Thomas Graham Jackson:[1] "To imagine Saint Mark's at this period (1070 A. D.) we must banish in imagination all the wealth of lovely marbles that now adorn it, and picture to ourselves a plain brick church, as plain externally as those of Ravenna. . . . The decoration was begun at once. Every ship that carried Venetian commerce throughout the Levant was charged to bring home columns and plaques of precious marbles. Sculptured capitals were brought from Constantinople," and so on, until at last, "no building can compare with Saint Mark's in the splendor and abundance of its marble decoration, either without or within."

VII

The logical outcome of the development of the arch principle in Gothic architecture was the complete elimination of the bearing wall. And, by the same token, the great openings thus produced in the Gothic façade became its most significant feature. What is more natural, then, than to find these openings glorified in the stained-glass window—the crowning beauty of Mediæval art?

The logical result of the development of clothed construction in Byzantine design was the elimination, from this clothing, of mouldings and other surface modeling. And this thin, flat covering which was thus produced became, at one and the same time, the most significant, and the only feature which its designers could enhance with ornament. Being denied modeling, they resorted naturally to color and texture for the glorification of their structural idea, and, as if to show that if only you make your decoration thin enough you can afford to make it as rich and costly as you please, they purposely chose precious materials in which to work.

We have already written of the marble plating that they employed for this purpose—but this is not half the story. By far their most beautiful decoration was their glass mosaics, as we still find them in S. Apollinare Nuovo, Saint Mark's, the Capella Palatina, and other glorious interiors. If stained glass represents the perihelion of Gothic art, these priceless encrustations constitute the perihelion of Byzantine art, a fitting ornament to an appropriate feature.

Like marble plating, the matchless beauty of this mosaic was not confined to the interior surfaces of their construction. It was—and in some cases still remains—applied to the exterior as well. To quote from W. R. Lethaby's description of that original Saint Peter's built by Constantine:[1]

"The outer porches of the atrium were adorned with mosaic. The façade of the church, rising above the cloister colonnade, was also covered with mosaic, where three ranges of figures portrayed Christ between the

[1] *Byzantine and Romanesque Architecture.* By Sir Thomas Graham Jackson.

[1] *Mediaeval Art, from the Peace of the Church to the Eve of the Renaissance.* By W. R. Lethaby.

Virgin and Saint Peter, with the four symbolic beasts, then the Evangelists themselves, with their books, and below the twenty-four elders putting off their crowns. This façade, with its mosaic, is shown in an eleventh-century manuscript preserved at Eton." Its "solemn beauty . . . with its gable-mosaic shining in the morning sun as the people passed through the fountain court, and assembled for early service in its dim, long-avenued interior, may hardly be imagined."

VIII

We might go on to consider with what good reason the builders of the later empire continued to employ the column, even though they had discarded all the other features of classical architecture, for this is just another chapter in the story of the age-long struggle to reduce supporting members to their smallest possible dimensions.

We might endeavor to show how logical was the use of the impost block, and its subsequent development into the characteristic and appropriate Byzantine capital. We might pass on to still other details of Byzantine design, but we will not. For this essay does not pretend to be an exhaustive analysis of the style. It is intended only as an appreciation of the Byzantine idea.

And we have undertaken this study because we have been struck with the remarkable similarity between the problems of the Roman architect and our own problems of today.

For our generation, too, has passed through a time of profligate prosperity and overweening ambition. Our engineers, too, have been called upon to devise an inspiring structural system, a system capable of spanning two feet to the other's one, and yet with supporting piers only a fraction the size. We ourselves are now building in a rough-work construction. And we too, at the outset, have found ourselves bound down by irrelevant architectural traditions, more of them than ever trammeled the architects of Rome.

And for several decades it has seemed as if we should, for this same reason, never come to realize the possibilities in our own new clothed system.

But that danger is becoming a thing of the past. Whether our race may have been growing in artistic appreciation or, what is more probable, whether this knowledge is being forced upon us by the increasing cost of construction, we do not know. But however it may be, evidence is not lacking to show that we too are beginning to realize both the passive and the positive value in an architectural beauty that is only skin-deep.

EDWIN H. BONTA.

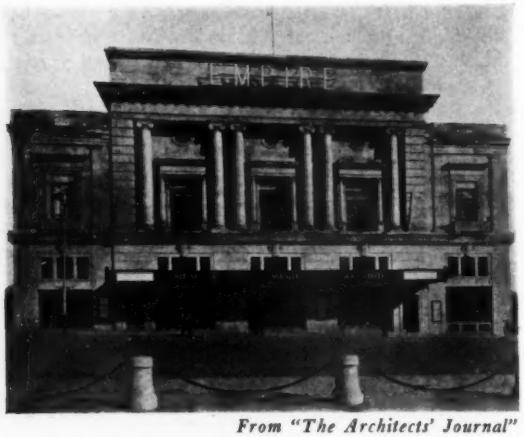
From Foreign Shores

Orders

I AM setting down the above caption in the hope of putting myself into a formal architectural state of mind. However it is not The Orders of architecture which are bothering me, but orders from that dictatorial conscience within which tells me that I must be about the inspection of my foreign cargoes that I may select from the offernigs such items and illustrations as will fairly acceptably fill the space which has been allotted to me. The prospect is not entrancing and I shall be as highly surprised and deeply gratified as any of my readers can be if aught of value crowns my effort; for never in my experience in this field has less of an inspirational nature been laid upon my docks. Perhaps it is my present mood but never before has architecture itself seemed so uninteresting nor theorizing upon it so futile. But orders are orders in the realm of writing, as in architecture, and space is to be filled in journals as in design. (And, generally, pretty much for the same reason—to fill space.)

Color in Architecture

Architect, Builder and Engineer of Cape Town directs my thought to a topic which is not really suggested by the above heading which I have employed merely to attract the attention of the architectural reader. Architects are not inclined by nature and education to give much heed to sociological or economic matters, preferring generally the lighter stuff of descriptive æsthetics; that is, stuff bearing upon concrete visible facts rather than upon abstract intellectual concepts. But doings in China and in India and in other parts of the world, where the sun and exposure have warmed and browned the skin of the natives to a tint a little deeper than our own, lead us of the pink-skinned races who call ourselves white men to reflect upon our relationship to our brown and yellow and red toned brothers. In a sane and just editorial the Cape Town journal referred to treats of a phase of the subject under the caption *The Colour Bar*. As the colored craftsmen and artisans concerned are in the building trades and crafts, the topic after all relates itself to architecture. East Indian craftsmen and artisans highly skilled and endowed were imported into South Africa long ago by the Dutch East India Company, when there was not a skilled white in the community, and their descendants are there today quite as indigenous to the soil as are the whites and still through tradition and practice skilled in their ancestral crafts—still more capable than the whites; yet the trades-unions set their wage as about 75 per cent of the wage of the whites. And now the Government has asked tenders on public works from contractors who shall employ only colored labor and contractors who shall employ only white. The tenders from the contractors estimating on white labor are in excess by at least the amount of the difference in wages. Contracts had not been awarded when the editorial was written but one who knows the political power residing in trades organizations can see the direction of the tendency. The unfairness lies in the separation of the classes in inviting the tenders and in the shutting out of the highest class of artisanship procurable in public work; not a discrimination between races of a supposed higher or lower order of mentality and culture but a



From "The Architects' Journal"

THE LIVERPOOL "EMPIRE"

"An example of 'resolved' duality or trinity and of 'punctuation' which would delight the soul of Mr. A. Trystan Edwards. Very correct, but is it beautiful?"

discrimination between citizens with equal political rights and equal cultural background. This is the first appearance of the color bar in South Africa and is regarded with apprehension.

Matters of a Different Complexion

In my preceding paper I suggested the possibility of a review of certain writings by Mr. A. Trystan Edwards when his series on Architectural Style in *The Architects' Journal* of London should have been completed. The series is still running, but I shall not await the end to pen such thoughts as I have in mind and which his conclusion or conclusions would hardly alter.

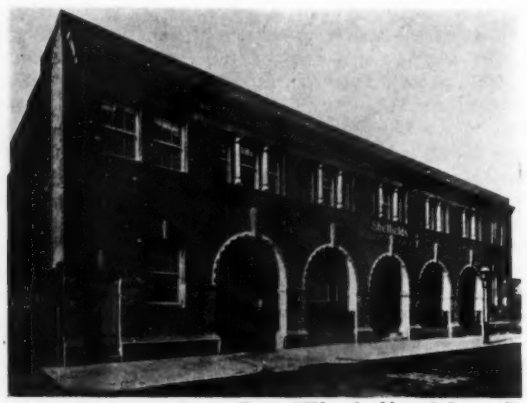
With certain of Mr. Edwards' premises or statements I cannot agree as they seem to me counter to experience and against nature and human nature. As I say, Mr. Edwards' series is still running and in contemplating this work as well as the similar work of others, I am led to remark to myself: How funny it is that so much can be *written* upon a topic on which so little is to be *said*. But funny as it is people are going to continue to write and take a chance on saying something, as my own voyages in my paper boat would seem to exemplify.

Now, first, I am going to take exception to Mr. Edwards' concept of Beauty which to him is a physical characteristic residing in form rather than a spiritual essence exhaling through form only to be cognized by a personality endowed with the same spirit. Psychology, even modern psychology, is not to be brushed aside with a gesture of the hand. Mr. Edwards makes beauty dependent entirely upon a, to him, proper application of the rules of grammar. If the grammatical formula has been properly applied the resultant form will necessarily be beautiful, and he cites a sentence—"'e don't know nothing about it," as contrary to the meaning intended (he knows nothing about it) and as unbeautiful because of its ungrammatical form. But he may be lifting the words from the context. I rather imagine that under the flowing pen of a Kipling, a Riley, or a Lowell, those words may become a homely element in a searching beauty. Has Mr. Edwards ever considered the dissonances in a lovely musical composition, all the more lovely for their presence!

From "Construction"

NEW MEMORIAL JUNIOR SCHOOL, TRINITY COLLEGE SCHOOL, PORT HOPE, ONTARIO
SPROATT & ROLPH, *Architects*

"A caress bestowed on this design by the draughtman's pencil would have softened the military asperities; nor defeated its purpose as a War Memorial"



From "The Architects' Journal"

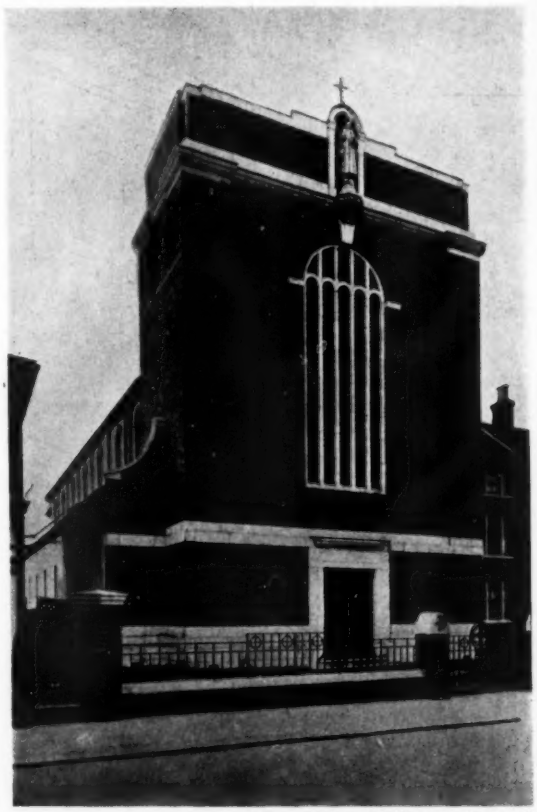
BUSINESS PREMISES AND WAREHOUSE,
CORNWALL STREET, BIRMINGHAM
BLOOMER & GOUGH, *Architects*
"Rather a nice treatment of the stone in the arches"

Then, second, I am going to take exception to Mr. Edwards' placing art and nature in the same category and drawing conclusions on art from nature organic or inorganic, animate or inanimate. There is but one way in which art can be related to nature and that is through human nature—through man. It is a confusion of terms to endow the organic and inorganic forms of nature with intellect—at least with the intellect which resides in man; the intellect which permits man consciously, deliberately, purposefully to control and crystallize his emotion in the forms and terms of art. The instinct which

leads (or forces) the flower to entrap the insect, or the leaf to turn to the light is not intellect of the sort which creates art or powders its nose in public. Nor is it intellect at all except, as I say, through a confusion of terms.

Too Much Grammar

Now, third, I shall agree with Mr. Edwards that it is not safe to press the analogy between literature and architecture too far; although architecture, Mr. Edwards to the contrary notwithstanding, *does* have an idea or an emotion, especially an emotion, to convey. It is that fact which marks a building as architecture and not as merely an ordered or orderly structure. It is because too many mechanical rules, grammatical rules, if you will, too many cut and dried formulae and too little of human feeling and emotion have entered into their composition that the buildings along our streets make so slight an impression upon the human beings who move insensible to their proximity around their bases, and look in and out of their windows. Mr. Edwards' theory of punctuation and inflection is interesting; but here, as well, too close an analogy to literary form must be avoided. We punctuate by bringing our unified composition to a proper ending. But all of Mr. Edwards' resolutions of duality, trinity, double-duality and *cinq*tity into unity simply yield symmetry, which is death; not so far has he touched upon the life-giving property of balance. Now, symmetry implies similar punctuation, a period, at both ends. That is, one must begin in the middle and read to the right and left simultaneously; in other words one must possess at one and the same time the Oriental and the Occidental mind. Somehow balance appeals to me personally in literature, in art, in nature, in life. One of the most beautiful women I ever saw was out of symmetry for she had lost a leg; but she moved with exquisite rhythm and grace in perfectly controlled balance upon a single crutch. In fact no woman or man is beautiful in strictly symmetrical pose—if a human can strike or maintain such pose. But certain symmetrical buildings have been beautiful—though that was not the underlying cause of their beauty; no human being is beautiful in strict symmetry but only in using a symmetrical body to effect an ordered balance.

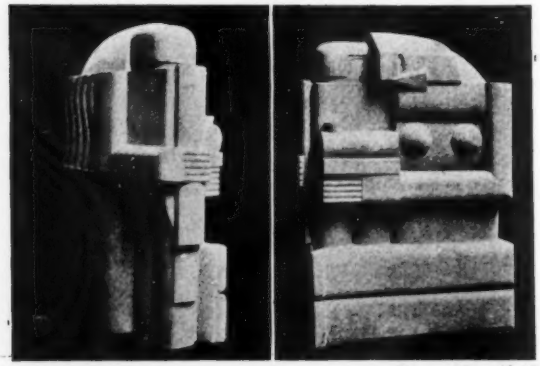


From "The Architects' Journal"

ST. JOSEPH'S MEMORIAL CHURCH, LEYTON, LONDON
E. BOWER NORRIS, A.R.I.B.A., *Architect*
"Showing what absence of 'feeling' can do to form."

From "The Architects' Journal"

THE DEMOLITION OF THE BANK OF ENGLAND:
THE COLONIAL OFFICE
"They builded well. But were it well so to build where time is fleeting nor even art endures!"



From "La Cité"

DESIGN FOR A FURNACE
"Showing a certain warmth of attachment"

The Tabooed Personality

I shall quote Mr. Edwards on one point so that the reader may decide for himself whether I am justified in taking issue with the underlying sentiment, as I shall. "The beauty of a building is held to depend upon the establishment of a certain relationship between the parts of the building itself. Thus, it can never be a question of taste or in any manner a gift from the spectator to the object." As to this I shall merely say that unless the spectator be of the same racial stock and environment as the person who put the beauty into the form originally, or unless by long association he has become familiar with the form, he will not apprehend the beauty—the form to him may be positively ugly.

A certain "metaphysic" to which Mr. Edwards has referred "warns," he says, "psychology off the field of art. Through its agency the *subjective* view of art, the tendency to judge *things* by diving into the mentality of the spectator, is proclaimed to be misleading if not actually fraudulent. In a work of art the intellect resides in the *thing,* and this intellect speaks direct to the intellect which is in us."

Again, *intellect* in inanimate things, in *insensate* things! It's too deep for me. But I have a theory—not a formula nor a grammatical rule to deaden the creative faculty, but a theory to stimulate the imagination —which I shall propound after I have made a passing remark on the necessity of a complete, rounded, sensitive, organism controlled by a spiritually endowed personality for the apprehension of the beauty, or the elements of that beauty, in any object animate or inanimate, organic or inorganic. The lovely flower he sees exhales no odor to one bereft of the sense of smell. The color which charms does not exist for one bereft of the sense of sight. Not ever a flower was born to blush *unseen.* It never blushed till some intruding gaze fell upon it. The song of the bird does not exist for him bereft of the sense of hearing. The flavor of the fruit does not exist for him bereft of the sense of taste. Color, sound, odor, flavor all are exhalations from the object in the form of vibrations, of pulsing energies, with no meaning, no significance, unless eye, ear, nose, and palate are present to receive the sensation; and these sensations are not related to the object, nor the relationship between the object and the recipient noted, unless that recipient be a human being with an age-long civilization behind him.

Beauty

Yes, beauty is in the form, entering through the spirit touch of the lover; revealing itself to the spiritual apprehension of another lover. I traveled in Europe once with the sad, glad "Charlie" Mulligan, sculptor, who knew form and the feeling of it. He was somewhat of a mystic, as every creator of art must be, and was taken with the mystical side of Claude Bragdon's fourth dimensional studies. (By the way, *The Architect,* London, 17 April, reproduces with his charming illustrations Mr. Bragdon's noteworthy *Producing Shakespeare*). The mathematics of the fourth dimension appalled Mulligan and when he learned that the fourth dimension was nothing but a mathematical concept, he sought some other explanation and found one which satisfied him. One is struggling for beauty with the three dimensional modeling clay; hoping, striving, for beauty, but it eludes him;

From "The Architects' Journal"

ENTRANCE HALL AND DOORWAY TO CENTRAL VAULTED CORRIDOR
THE BRITISH PAVILION IN THE PARIS EXHIBITION
EASTON & ROBERTSON, *Architects*

"There are designers among us who could have contributed similarly to the Paris show, but the result would not have been American any more than this is British."

From "Deutsche Bauhütte"

A Brick Building in Hanover

"If sunlight can stagger this building, what would zig-zag lightning do to it?"

then suddenly beauty beams from the clod—the fourth dimension has been tapped and beauty flows from out it. I have known worse theories. But I could not imagine anything much worse for art than to give an artist a formula for getting beauty out of the fourth dimension—or a formula for getting beauty out of proportions and relationship of parts.

As to the Theory

Theorizing on art, though not as futile as producing formulae for art, is on a plane with discussion on the life immortal. It gets us nowhere, even did we care to arrive. Theories on immortality are propounded mostly by those who get little or nothing out of present existence, or by those who offer rewards to those who seek rewards for doing their duty; or who may be scared into doing their duty through fear of punishment—the above only to give an idea of my attitude towards theorizing on art and life generally. But just the same, futile as it is, I like to theorize on art.

There are three possible theories to account for the reactions to art, that is, for the reactions which accompany the contemplation of a work of art: First and foremost, that the object is a medium through which sympathetic vibrations or rhythms are transmitted to the spectator, or better, recipient. Second, that the vibrations which are set up within the recipient are the reflections of his own spirit from the surface of the image because of his oneness biologically and ethnologically with the creator of the image; and third, that some outside impulse other than the biological and ethnological is working through the creator and through his creation to stir the rhythmic structure of the recipient. None of these theories holds a place for the idea that beauty or ugliness reside *per se* in the inanimate or created object, and are there whether one sees it or no. Beauty does not reside in the inanimate form except there be a sensitized eye to behold it; an eye sensitized through ages of association with the idealism of the creator of the form.

No forms or proportions are beautiful in themselves, but only as they express the idealism of the creator to a mind sympathetic to that idealism. We see beauty in nature not because beauty inheres in the scene but because the vibrations, the harmonies, the rhythms of nature are resident in us who are as much a part of nature as is the natural object itself, or the scene which presents itself to our eyes.

Beauty and love and life, and their idealistic expression in art, are all a matter of feeling, and can be neither created nor apprehended by one who is insensate; by one who cannot *feel*. Such an one cannot select and arrange the rhythms, the proportions, the forms, which shall transmit the impulse to the heart of his brother; the heart being that part of the spiritual anatomy which receives the impulse and the mind that part which defines, orders, and clarifies it; that is, makes its purpose clear. Enough of my theorizing for this time!

Comedy in Architecture

This is not theory—it is fact. To be an architect in England is to be nobody. Hence architects must have a handle—at least the title must. So "Chartered Architect" is proposed and the title is to be conferred on any member of the R. I. B. A. because the R. I. B. A. operates under a charter from the Government. In this land of the free we have Registered Architects—they have no registration—why should we see comedy in the title Chartered Architect?

Irving K. Pond.

How Shall the Young Architect Commence the Practice of Architecture?

The Architect's Small House Service Bureau as a Possible Answer

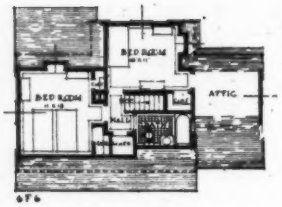
"HOW THEN *shall* the young architect commence practice?"

"Why, let him begin," is the ready answer!

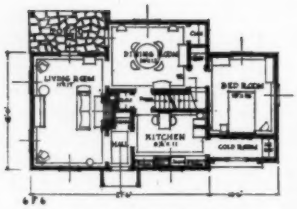
"Yes, but how?" is the reiterated question.

"How does he begin?"—comes the answer, sparring for time; "let him make a beginning in the way that he always has."

There, however, is the slip. He cannot. Conditions are not what they were. They are constantly changing, and the greatest change of all has come within the



SECOND FLOOR PLAN



FIRST FLOOR PLAN

last forty or fifty years. Back in 1879, when the unknown and youthful firm of McKim, Mead & White was formed there were scarcely a dozen eminent architects practising throughout the entire country. The mere knowledge that young Charles McKim had worked with the great Richardson and had studied in Paris gave his firm sufficient prestige to secure the necessary first commissions.

Today the young architect, holding a diploma from the best of the American architectural schools, and returned from Paris with perhaps a diploma won at the Beaux Arts, with several years of experience to his credit as draftsman in the now long established office of McKim, Mead and White, cannot start a practice under his own name and command even a fraction of the clientele that was willing to patronize the young men of forty years ago. Today there are many thousands of capable and reputable firms in established practice, and there are certainly at least a hundred practicing architects as eminent and as talented as was Charles Follen McKim.

How then is the young man of today to commence practice? Let us first examine his qualifications and then attempt to discover when and how he gets his business.

There is little doubt that the well-trained man today has had greater advantages than his predecessors in educational qualifications. Of course all of those who practice architecture do not have the advantages of all the training that may be had. Many men get practically all of their training in the architect's office. There are plenty of young boys some of whom have had high school training in "drafting" or "mechanical drawing" who come into the offices as tracers. Through years of practice these men become very proficient draftsmen. Many of them patronize the night schools and extension courses, or join ateliers.

Both the foregoing classes of men are to be found principally in the city offices. Those of them who are lucky enough to have friends wanting to build often make a practice of handling small jobs "on their own" by working nights and thus begin a sort of "surreptitious" practice before actually opening an office.

There are many men, however, who call themselves architects today, who have never seen the inside of any architect's office except their own. These are the small-town men who have drifted into the profession or in some cases have even been compelled by force of circumstances to enter it. The small-town builder builds his houses as he has built them before, making only such slight modifications as his fancy bids. Such details or such variations as must be studied before erection are sketched out on the face of a smooth pine board. As the carpenter gets more work to do, however, he finds that he must leave more explicit directions with the men under him on one job while he visits another. He picks one of the boys, therefore, who is "handiest with his pencil," and asks him to lay out a little sketch on a sheet of paper. As the business grows and the demand for "laying it out" increases, the young fellow finds that he is becoming less carpenter and more draftsman. The other men begin to hail him as "Archy-teck." Pretty soon he begins to get work from other builders. He is no longer an employee drawing wages from the carpenter. He gets paid for his drawings at so much a house. He puts a sign in the window over the grocery store. He is a full fledged "Archy-teck." He makes plans for the lumber yard people to send along with the material to the smaller towns where there has not yet been enough business to develop an

"Archy-teck." Carpenters who are setting up business for themselves are told by the lumber yard people that he is a handy fellow from whom they can get a set of plans. Business keeps coming as long as the plans are turned out quickly and cheaply. Then another handy young fellow is discovered who can do it quicker and cheaper and the process begins over again.

Of course there are as many variations in experience as there are men but one does not go far wrong in saying that architects get their training in one of three ways: school training, office training, and job training.

Despite the horror of the designs which they create, it is the writer's opinion that so far as the small house is concerned the job-trained country "Archy-teck" is the one trained by the right method. What he lacks he lacks because America has not got it—a tradition in small house design. America began right. But the period of greatest expansion and increase of population came at the same time as the introduction of machinery. In the enthusiasm for the new tools, especially the jig-saw, form and tradition were forgotten. So many badly designed houses were built that the earlier examples were lost to sight. The eye of the present-day carpenter and builder has never been properly trained. He has hardly seen anything except bad examples. Such tradition as he has dates only from the very worst period of flimsy gimcrack building. The job-trained "Archy-teck," because he lacks tradition, lacks taste. The school trained architect may have taste but lacks tradition so far as the construction of small houses is concerned. The man with office training may or may not have taste but he will be possessed with the ability to draw, which without taste and tradition may be a greater danger to him. He will be likely to think in terms of lines on the paper rather than in terms of mass. Into the training of all architects should go something of all three types of training, school, office, and job.

What the Small House Service Bureau can do to improve the training that architects receive, it shall be our purpose to discuss later; let us think for the moment of young architects as they are, seeking business, and ready to begin a practice of their own. We have already shown that the job-trained "Archy-teck" is made by the business that comes to him. It is the school and office-trained young men who are confronted with the problem of seeking business. The average owner picks the beginner for one of two reasons. He is cheaper and he is supposed to give more "personal attention." In other words, the owner can dominate the beginner as to price, design, and general handling of the work as he cannot dominate the well established man.

Now if the beginner is working on a cut fee he is not going to find it easy to spend sufficient time on designing and redesigning until a proper scheme is evolved, and the beginner is at that period of his development when he needs to do just this. It will take him longer to develop his design than the more experienced man with whom he is competing. The pressure for speed will prevent his "arrival," so to speak. His production will be ordinary. Therefore his prospects will be limited and very likely he himself will be condemned to a career of mediocrity. The clients of course won't know the difference. They will rejoice at getting something cheap and will keep on seeking and employing young men to do ordinary things: limiting the lives with which they come in contact to hackwork, mediocrity and oblivion.

Young men are sought in all classes of so-called "commercial work" usually for the reasons given. We are concerned at present, however, chiefly with the pitiful case of the "small house hack." For example a young man named "Dabbler," married, and with two children, had had several years' experience in one of the large New York offices. He lived in one of the regulation ready-made suburbs. He was affable in manner and obliging. A builder friend asked him one night if he could make up a set of plans for him on short order. Mr. Dabbler brought home drawing board, triangle and T-square, worked on the dining-room table and in two evenings "batted out" a set of plans for which he received $50.00; ten dollars less than a whole week's salary. He kept up the practice of accommodating friends. He left the office. He batted out two, three, four and in the busy season, even five sets of plans a week. He rigged up a wing on his house and hung out a sign "office." The houses in the suburb grew more frequent and huddled closer together, but they kept their nondescript incoherent character, and Mr. Dabbler's energy went entirely into the preparation of diagrams on paper, which are still carefully preserved in the building department, and which at the time made it a good deal easier for the plumber, steamfitter, electrician to set up their work. Mr. Dabbler is older now; he isn't willing to sit up nights. He doesn't turn out plans. He hires some youngster to do that. He builds for speculation. When you discover he was once an architect, he tells you that "competition is so keen" and "you have to give the people what they want," that it "doesn't pay" to give them something "really Archy-teck-tural."

Meanwhile the true development of domestic architecture, aside from the mansions of the rich, is being neglected by the profession.

Has the Bureau anything to offer to the young architect about to establish his own practice? First of all, it offers the beginner a chance to work with older men, to serve on committees with them, to get the benefit of their experience, and to get the stimulus of collective effort. A young Bureau member submits a design to the Plan Committee. He works with six or seven men who are putting every effort forward at once to help him and to create the best possible design for a small house. The design is improved and he absorbs something of the enthusiasm and of the method used by the group of older men. He takes time to do it right. (The illustration on page 336 is a sample of the character of the work.) After the approval of the scheme, the designer works with one of the members of the committee to develop the working drawings. He is paid for his time. He becomes a member.

As a member he is at once stamped as a man of a certain degree of prestige. Bureau clients are referred to him for consultation. They come to him having selected a set of previously prepared plans. They require

further professional advice upon how to execute the work indicated on the drawings. First of all assistance is required in filling out the specifications, choosing the materials to be used, designating methods to be employed. After bids have been received he may be called upon for further advice. The proposal most advantageous to the owner must be picked out, the contract signed, and then as work progresses his services are required from time to time for superintendence. As a result, the prospective small home owner, instead of carrying with him the conception of an architect as a sort of hack, who somewhere and somehow continually grinds out indifferent sets of plans, remembers him as an individual with expert knowledge of the building business, who came on call when he was needed and, because of the advice that he gave, made it possible to secure a small house of distinction instead of a nondescript collection of rooms.

On his side the young architect, instead of standing alone, having to compete both with other older architects and with miscellaneous outsiders, gains a position as one of a group, the members of which are coöperating to improve low-priced domestic architecture. He finds himself as a representative of the profession pledged, it is true, to give his advice at a low figure ($4.00 per hour for consultation), but giving that advice in a dignified way that is a credit at once to himself and the profession. The small basic income from consultation fees is welcome to the young practitioner and time thus spent may from an economic point of view bring a more certain return than much of the time spent in giving free suggestions to prospective clients and in originating plans for small houses on which it is impossible for the individual to give the complete detailed service necessary for the execution of really good work.

In other words the young architect who commences practice through the Bureau will find an organization ready to aid him. It will reduce his individual labor, give him colleagues to work with, and contracts which will help to develop his talent. He will serve a valuable apprenticeship in design, in consultation, and in superintendence, always with the structure of the Bureau ready at hand for coöperation and guidance.

The local reputations which Bureau architects can build up as professional advisors on houses which stand out as the result of such architectural service is the best possible foundation for an independent practice. It will take some years for the movement to gain the proper momentum and for the educational leaven to work, but the time will come when an architect will be selected because his was the personality that raised the standard of homes in a locality and not simply because he was the small-town boy who was handiest or quickest with his pencil.[1]

ARTHUR C. HOLDEN.

[1] This discussion will be continued in the ensuing issue of the JOURNAL with an article entitled *How Should the Established Practitioner Remain in Practice?*

Paris Letter

IN FRANCE we are thinking anew of our façades. Once upon a time, to make walls, we piled brick upon brick patiently, and stone upon stone with that careless precision which gives delicate pattern and soft textures. Now we are bidden to new devices, for the steel skeleton has come, and along with it cement and steel-tentacled concrete. Sometimes we still clothe the steel bones with stone, but more often plastered brick, simulating stone, is used because of its greater facility, particularly when structures of some size are to be raised.

Where we cling to the real there seems no need for anxiety for the future. We have plenty of good stone in France. We know it through centuries of trial. In stone, the new fashion is not difficult. But the cost, not only of material but for the workmanship (for the stonecutter is almost an artist), sends us seeking other ways of hiding our structural bones. Red sandstone is excellent and it has been very happily used by various architects, but only in luxurious building, of course. Then we have the imitations of stone, as have you. They may pass for the present, but will they last? And even though they do, shall we not be disappointed? For stone itself is a part of the great natural rhythm. Over its clean surface Time lays a patina of soft tones. Plaster substitutes become lustreless and Time, as though despising them, daubs them in dirty greys. And not content with that measure of despite, frost and sun join in the contempt and gently heave and strain the surface until mocking cracks appear and the bones of the skeleton, little by little, indiscreetly poke their outlines through the flimsy covering.

The Classicists, *bien entendu,* are not sparing in their criticisms of the Modernists, in these matters—those dreadful Modernists with their monolithic creed and their monolithic structures in which holes are pierced to serve as doors and windows. But it is interesting to watch the Classicists take up the argument of the Rationalists and join with them in war—not upon architects, it is true—but upon that crew of decorators, clever but ignorant, who call themselves architects and who fancy that any building can be as successfully realized in space as on paper.

The Exposition of Decorative Arts shows several examples of this sort of thing. Will they serve to encourage others in similar efforts? I hardly think so. But, on the other hand, and because of the temporary nature of the structures, architects have used surface treatments with great variety, plain and decorated and mingled in the general scheme of the structure. Likewise there is also extreme simplicity—that utter extreme of which we find examples in the old houses of Italy and in the South of France where the clothing is all of lime mortar.

Aside from the monolithic creed which the champions of extreme modernism seek to express in their buildings, they consider that as a plain, even a challenging mark of

their independence of recognized forms, it is well to abolish the cornice altogether. Time, being the final judge, will give the answer in this matter as well as in material endurance. Time allows to survive that which satisfies the principles both of logic and æsthetics. Structures that meet only the cold demand of logic disappear, abandoned of man's indifference; where æsthetic considerations alone have prevailed, without regard to structural laws, the play of the wind, the whip of the rain, the swell of the sun and the shrink of the frost, our plaything tumbles to dust of itself.

§

Apropos of the stylistic association of architectural ideas, whereby many kinds of buildings are fixed in men's minds by such terms as a Gothic church, an Italian villa, a Renaissance chateau, an English university, we have in Paris a recent example—happy, as well—in the University City. I have already written of this scheme sponsored by the city of Paris. Between the Park of Montsouris, and a new park in the southern part of the city, the municipality has given a tract of land, reserved entirely to houses for students. It is known as the University City. Each country receives a lot and thereon erects its own building. The first to be finished is that for French students, due to the generosity of M. Deutsch de la Meurthe, and to the skill of the architect, M. Beckman. The inspiration is clearly English, by virtue of the principle just enunciated, and the donor encouraged that tendency. Soon we shall see rise the buildings for foreign students—of which those for Canada and Japan will be the first, it seems. The old railway crosses the Park.

A new station will be built for students who, in a very few minutes, can reach the terminus in the heart of the Latin Quarter, only two hundred metres from the Sorbonne.

§

The ever-present diverse tendencies in architecture have been discussed in the Congress of Architects, which takes place under the auspices of the *Société Centrale* and is representative of all important architectural organizations.

As to tendencies of architecture, the sense of the last meeting was characteristic—an appeal for calm, one might say, since the form of the following resolution proves that there had been sharp discussion. It was thus resolved: *"Que les Architectes d'aujourd'hui laissent au judgment de l'avenir des œuvres qui témoignent, d'une part de la mentalité, de l'époque, et qui soient, de l'autre, en parfaite harmonie avec les coutumes, le climat et les matériaux de France."*

Among the important studies made by the Congress, of particular importance were those which related to the title of "Architect," and to the ownership of design. Opinion as to the title "Architect" was practically unanimous. All the societies agreed that the title should be reserved to those who agreed to submit to the Professional Code, and who could give proofs of their technical attainments. What shall be those proofs? The Government will decide this, for a law will provide the sanction, and a solution should be forthcoming within a few months. As regards the ownership of design, a great step has been taken in France, and henceforth the unauthorized reproduction of the work of an architect affords ground for damages. The Congress resolved that the Convention of Berne, revised at Berlin, be ratified without reservation by all the signatory states, and conforming to the provisions of this act, that the works of architects be protected exactly as are all other artistic works and on the same conditions. It is interesting to note that special agencies have come into existence to prepare contracts for reproduction, and for aiding architects in safeguarding their rights, of which one frequent violation is the reproduction of their buildings on postcards, although they have numerous other rights in design both in private and public work.

§

It is somewhat a relief to forsake these practicalities, or these ceaseless anxieties over the Architecture of the Future, and to seek a little repose in the Salon. Here we share gently in the pleasures of the Past. In one of the rooms there has been assembled the work of the one-time pensioners of the Villa Medici and of the old *boursiers* of the Salon. Here is the study of the Cà d'Oro by Monsieur Defrasse; the Pitti Palace by Monsieur Menot; the ceiling of the Farnese Palace by Monsieur Laloux; the Villa Medici of Redon, the beautiful studies of the Pantheon and the view of Rome in the fourth century, by Monsieur Chedanne; the sections of the Palatine Chapel at Palermo so perfectly rendered by Monsieur Hulot; Sta. Sophia by Monsieur Prost, and the precious restoration of the Centenarian's house at Pompeii by Leon Chifflot, whose recent death we deplore.

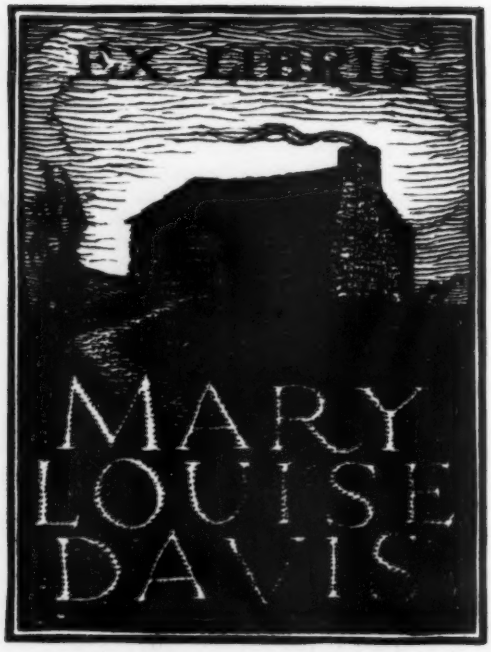
Before these hallowed works, one seems convinced, in considering their diversity, that all were modern in their time; that they grew out of inherited traditions, not rigidly accepted but liberally transposed. The principles of composition are common to them all. In looking at them, that is the lesson we shall do well to seek and learn.

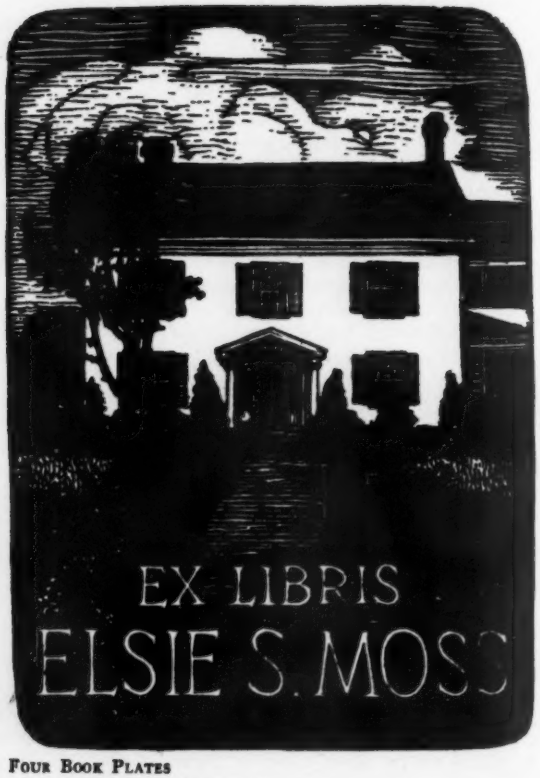
G. F. Sebille.

Rheims Cathedral

The Société des Amis de la Cathedrale de Rheims have opened a public subscription for funds with which to restore the great rose window and the glass in the gallery *dite les Rois*. The Société informs us that the old timber roof destroyed during the war has been replaced by one in reinforced concrete, the gift of Mr. J. D. Rockefeller, Jr. The great rose window was wholly restored just before the war by Monsieur Paul Simon. A part of the glass has now been destroyed, but Mr. Jacques Simon, charged with the task of the restoration, will replace the lost parts by utilizing the designs made by his father after the originals, about a dozen years ago.

The Journal will be glad to receive and forward subscriptions to the treasurer of the Society.





Four Book Plates
After the woodcuts by J. J. Lankes

In the Garden of the Goddess

FACE TO face with a work of art one man is unmoved while another is thrilled. He who is ecstatically transported by art's magic vision is likely to feel no need of inquiry as to why he is so stirred. It must be confessed, however, that there are many who respond to the influence of one or another of art's many modes of expression, who do so but half-heartedly, and perhaps with a bit of doubt lest they be making fools of themselves. Others there are who try to cultivate a taste for art. They are swept along by the shibboleth of Culture for the Multitude, and they wish, not only to be considered cultured, but, what is far more important, to *be* cultured. They seek guidance and doubtless they are entitled to wise counsel.

All of these, lovers, near-lovers, and would-be lovers, will turn hopefully to the books[1] of which I write. In each the elemental riddle—the Whyness and the Whatness of Art—is seriously considered. Even those relatively few of us who cheerfully hold that art is plain and that the riddle lies in the philosophies which have been spun about it will be interested—for it is always treasure-trove to come upon the sincere interpretation of an earnest fellow-student or an honest teacher.

These two books are in this wise allied chiefly because the subject matter covered is in some small part the same. "Kit" Anstruther-Thomson seems the fellow-student and Clive Bell the teacher. In "Kit" we have the Conscientious Cataloguer. In Clive Bell the Metaphysician lecturing *ex cathedra*. But in each there is much more. In each there is a genuine love for the matter in hand. Each has felt the ecstatic thrill and though each has been moved to try to explain it—"rationalize" it, if you will—that fact does not impair the reader's impression of personal contact with delightful people who need for themselves no proof of the faith that is in them, but are offering it to others out of pure kindness of heart.

Vernon Lee's introduction fills half the first book. It is the work of a loving and admiring friend who is anxious—over-anxious perhaps—to say of her darling subject only such things as will compel the love and admiration of the gentle reader. Better had the kindly editress merely sketched in an outline and left the reader free to interpret in his own way the really intriguing and lovely personality who seems to flit shyly away from him as though embarrassed by page after page of superlative appreciation.

If we are more interested in the lady herself than in what she wrote her friend should not blame us. Miss Anstruther-Thomson's portraits show a person of the type made familiar by the DuMaurier drawings, and suggesting the wonderful Duchess of Towers. She must have had a virginal mind that could entertain knowledge and even wisdom without having to pass through the fires of elemental experiences. She loved art and she loved people too, but without realizing the condescension which accompanied her untiring desire to share her pleasures of the mind with ordinary less-gifted mortals. She wanted people to be excited over picture-galleries as she was and she liked to go with them and talk to them about the treasures which were there. She was "a born nurse, a born organizer and hostess." She loved horseback riding and life out of doors. She drew, and modelled and wrote. She had an inquiring mind and wanted to know *"Why* do we like the things we like?" Clive Bell thinks he has found the answer, for he says: "Anyone who is curious to discover why we call a Persian carpet or a fresco by Piero della Francesca a work of art, and a portrait-bust of Hadrian or a popular problem-picture rubbish, will here find satisfaction."

Miss Anstruther-Thomson's notes are like bits of conversation between enthusiastic art-students. She writes painstakingly of a thousand little things which genuine students feel instinctively and sometimes talk about to each other. She has a fine power of expression and great patience for the smaller matters of technique. Her biographer's statement that "she had always been a great reader of Ruskin" is superfluous, for her writings reveal the fact. She has adopted the Ruskinian method and made it her own.

She has some interesting comments on architecture: "It is certain that we, the lay public, are not interested in architecture from the point of view of construction, for most of us know nothing about construction; we care about architecture principally from the point of view of its power to give us agreeable sensations." She has a real affection for Gothic and though the matters of precedent do not worry her *per se*, she is keenly conscious of the difference between the mediæval work and its modern imitation. She says: "Modern Gothic, with its dull, lifeless regularity, gives us none of these feelings." (She has been discussing the sense of motion in equilibrium which she feels in a great Gothic church.) "Restorations of ancient Gothic are practically impossible, *for the dynamic instinct no longer exists nowadays*, that instinct which feels the exact amount of movement that would counterbalance pressure. So restorers are doing more mischief than they realize when they pull down and attempt to restore ancient buildings, for, with the best will in the world, in every carved stone they are replacing an alive art by a dead pattern."

She is tremendously interested in Greek vases and Greek sculpture. "Art gives us eternity of expression because the lifts and curves and lines remain unchanged; whereas people in real life are like snap-shots—they don't show by their shape that they are going to go on doing or feeling a thing; on the contrary, they change expression frequently; whereas the brows, the chin, the hair of a Greek statue hold the thought or feeling steady for all time."

Her comments on painting show rare discernment, common sense and poetic insight. The lamented Sargent painted her portrait and I imagine he must have had few comments on his work that could have pleased him more than her notes of appreciation on his "Ellen Terry," and the well known "Carnation, Lily, Lily, Rose."

This reader, being a mere architect, sympathizes with Miss Anstruther-Thomson's inability to understand "the

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1 *Art and Man*. Essays and fragments by C. Anstruther-Thomson with introduction by Vernon Lee (Violet Paget). E. P. Dutton & Co.
Art. By Clive Bell. Frederick A. Stokes Co.

more modern developments of Futurist art"—just as he is inclined to resent Mr. Clive Bell's calm assumption of knowing all about it and taking it quite seriously.

"I did my best," says he, "to understand this ultra-modern art, for I had a season ticket for the first Exhibition of it in Grafton Street, and I used to go three or four times a week to study it. Gauguin, Matisse and Picasso I got to appreciate. But there was one picture, for instance, which looked like broken packing cases but the catalogue said it was a portrait of Buffalo Bill, which puzzled me more and more every time I looked at it. So on the last day of the Exhibition I went to the official who sat at the table, and I said: 'Some of these pictures have beaten me; please tell me what they are aiming at?' And he said: 'Oh, I don't know.' So I said: 'Could anybody in the Gallery explain them to me?' He said: 'Oh, no, I shouldn't think so.' Then I said: 'Could anybody in London tell me what they are about?' And he said: 'Oh yes, Wyndham Lewis could, because he does them himself, but he isn't in London!' So I left the Gallery defeated."

This reader owns to an impression gained by reading *Art and Man* of a pleasant afternoon (raining of course) in an old attic going through a forgotten trunk full of old letters and the furbelows and trinkets of happy days long gone. There has been a faint scent of lavender, and one's fingers have clung lovingly to the faded rose-buds, bits of old lace and scraps of soft velvet and silky smooth patches of discarded finery. Clive Bell's book, on the contrary, though published now more than ten years, and favored by one new edition and four reprints, is still new and challenging. There is nothing unsound or sophomoric about it. It is irritatingly competent.

"What quality is common to Sta. Sophia and the windows at Chartres, Mexican sculpture, a Persian bowl, Chinese carpets, Giotto's frescoes at Padua, and the masterpieces of Poussin, Piero della Francesca, and Cezanne? Only one answer seems possible—significant form. In each, lines and colors combined in a particular way, certain forms and relations of forms, stir our æsthetic emotions. These relations and combinations of lines and colors, these æsthetically moving forms, I call 'Significant Form'; and 'Significant Form' is the one quality common to all works of visual art."

This, taken out of its context, may seem a bit like trying to explain the music which we hear from a phonograph by showing us the records and reducing them to variations of a series of delicate corrugations. To read the entire book is to be more fair to Mr. Bell. Whether or not one agrees with his formula one may gain much by the many new lights he throws upon a much-discussed subject and by the freshness and verve of his keen comment. The book is divided into five leading subjects—"What is Art?" "Art and Life," "The Christian Slope," "The Movement," "The Future." Each is so full of grist for the peruser's mill that a chapter of comment could easily be set up under each heading.

"It is a pity that cultivated and intelligent men and women cannot be induced to believe that a great gift of æsthetic appreciation is at least as rare in visual as in musical art. A comparison of my own experience in both has enabled me to discriminate very clearly between pure and impure appreciation. Is it too much to ask that others should be as honest about their feelings for pictures as I have been about mine for music? For I am certain that most of those who visit galleries do feel very much what I feel at concerts. They have their moments of pure ecstasy; but the moments are short and unsure. Soon they fall back into the world of human interests, and feel emotions, good no doubt, but inferior. I do not dream of saying that what they get from art is bad or nugatory; I say that they do not get the best that art can give. I do not say that they cannot understand art; rather I say that they cannot understand the state of mind of those who understand it best. I do not say that art means nothing or little to them; I say they miss its full significance. I do not suggest for one moment that their appreciation of art is a thing to be ashamed of; the majority of the charming and intelligent people with whom I am acquainted appreciate visual art impurely, and, by the way, the appreciation of almost all great writers has been impure. But provided that there be some fraction of pure æsthetic emotion, even a mixed and minor appreciation of art is, I am sure, one of the most valuable things in the world—so valuable, indeed, that in my giddier moments I have been tempted to believe that art might prove the world's salvation." . . .

"Like all sound revolutions, Post-Impressionism is nothing more than a return to first principles. Into a world where the painter was expected to be either a photographer or an acrobat burst the Post-Impressionist, claiming that, above all things, he should be an artist. Never mind, said he, about representation or accomplishment—mind about creating significant form, mind about art. Creating a work of art is so tremendous a business that it leaves no leisure for catching a likeness or displaying address. Every sacrifice made to representation is something stolen from art. Far from being the insolent kind of revolution it is vulgarly supposed to be, Post-Impressionism is, in fact, a return, not indeed to any particular tradition of painting, but to the great tradition of visual art. It sets before every artist an ideal which, since the twelfth century, has been cherished only by exceptional men of genius. Post-Impressionism is nothing but the reassertion of the first commandment of art—'Thou shalt create form.' By this assertion it shakes hands across the ages with the Byzantine primitives and with every vital movement that has struggled into existence since the arts began." . . .

"Religion, as I understand it, is an expression of the individual's sense of the emotional significance of the universe; I should not be surprised to find that art was an expression of the same thing. Anyway, both seem to express emotions in different form and transcending the emotions of life. Certainly both have the power of transporting men to superhuman ecstasies; both are means to unearthly states of mind. Art and religion belong to the same world. Both are bodies in which men try to capture and keep alive their shyest and most æthereal conceptions. The kingdom of neither is of this world. Rightly, therefore, do we regard art and religion as twin manifestations of the spirit; wrongly do some speak of art as a manifestation of religion." . . .

"Dogmatic religion can be vital and sincere, and what is more, theology and ritual have before now been the trumpet and drum of spiritual revolutions. But dogmatic or intellectually free, religious ages, ages of spiritual turmoil, ages in which men set the spirit above the flesh and the emotions above the intellect, are the ages in which is felt the emotional significance of the universe. Then it is men live on the frontiers of reality and listen eagerly to travellers' tales. Thus it comes about that the great ages of religion are commonly the great ages of art. As the sense of reality grows dim, as men become more handy at manipulating labels and symbols, more mechanical, more disciplined, more specialized, less capable of feeling things directly, the power of escaping to the world of ecstasy decays, and art and religion begin to sink. When the majority lacks, not only the emotion out of which art and religion are made, but even the sensibility to respond to what the few can still offer, art and religion founder. After that, nothing is left of art and religion but their names; illusion and prettiness are called art, politics and sentimentality religion." . . .

"To justify ethically any human activity, we must inquire—'Is this a menace to good states of mind?' In the case of art our answer will be prompt and emphatic. Art is not only a means to good states of mind, but, perhaps, the most direct and potent that we possess. Nothing is more direct, because nothing affects the mind more immediately; nothing is more potent, because there is no state of mind more excellent or more intense than the state of æsthetic contemplation. This being so, to seek any other moral justification for art, to seek in art a means to anything less than good states of mind, is an act of wrong-headedness to be committed only by a fool or a man of genius." . . .

"Art schools do nothing but harm, because they must do something. Art is not to be learned; at any rate it is not to be taught. All that the drawing-master can teach is the craft of imitation." . . . "The creation of soft artistic jobs is the most unlikely method of encouraging art." . . . "Let the artist have just enough to eat, and the tools of his trade; ask nothing of him. Materially make the life of the artist sufficiently miserable to be unattractive, and no one will take to art save those in whom the divine dæmon is absolute." . . . "The artist and the saint do what they have to do, not to make a living, but in obedience to some mysterious necessity. They do not produce to live—they live to produce." . . .

"Ninety-nine out of every hundred people who visit picture galleries need to be delivered from that 'museum atmosphere' which envelops works of art and asphyxiates beholders." . . . "Society can do something for itself and for art by blowing out of the museums and galleries the dust of erudition and the stale incense of hero-worship. Let us try to remember that art is not something to be come at by dint of study; let us try to think of it as something to be enjoyed as one enjoys being in love."

Here let surcease reign, for here is a sufficient answer for those who need no "open sesame" into art's magical gardens. If we *must* philosophize in order to understand the modern "movement" so much the worse for the movement, for if Mr. Bell is right when he speaks of the universal language which is art, that language needs not philosophy for interpreter. The writer suggests that we gather unto ourselves Miss "Kit" Anstruther-Thomson's fine English honesty and candor, and read Clive Bell's challenging book, yielding to his superior intellect only when we find ourselves going along with him in entire honest sympathy. He will warm our hearts by his tribute to a mistress whose beauty is undimmed by any amount of metaphysical argument, and who will allure us more potently than ever because we shall have seen her through the eyes of one who knows how to tell of her charm, and whose love for her shines on his every page. WILLIAM L. STEELE.

The Follies of 1950

Compiled for the National Association of Substituters, Great Bluffs, Masconama

THE ANNUAL report of the Committee on Imitations for 1950, which lies on the desk before me, contains an interesting piece of news. So efficiently has the National Association performed its functions since 1932 that today less than 7 per cent of existing buildings incorporate any natural products in their original forms. What this means can be readily grasped when it is recalled that only twenty-five years ago building stones were still used just as they came from the quarries, for the facing of city buildings; that wood, often used for floors and trim, actually showed the grain in the trees from which it was cut; and that sand, gravel, cinders, and water were often employed in the preparation of concrete just as they came from the ground and without the slightest attempt at scientific treatment in the factory.

However, it is apparent that even as early as 1925, great strides forward had been made in the use of imitations and substitutes. In the archives of the Association is a copy of *The Arts* for September, 1924, in which is an article by Henry S. Churchill, called *The Plaster Builders*. The author points out, rather satirically, it seems, that a great deal of imitation and substitution was in vogue even at that remote time. It might be amusing to quote from his article simply to show by comparison what enormous strides have been made in the development of scientific imitation since Mr. Churchill's day. It must be remembered, though, that in 1925 imitation was rather for the purpose of copying natural forms than as an art in itself, practiced for the express purpose of concealing the existence of these forms. Mr. Churchill says: "Even a partial list of the makeshifts employed in the Building Game reads like the specifications for a Moving Picture Heaven. Cast imitation stone; stone put on with a trowel; stone made of wood-fibre. Gothic

stone-vaults stuccoed on wire lath, hung from steel trusses, the joints painted. Gothic tracery of re-inforced cast cement. Slate and tile roofs made of asbestos or metal. Imitation marble wainscots and columns made of plaster or 'composition.' Tile bath-rooms of 'tile-board.' Oriental rugs made of rubber: a rug you love to mop. Door-knockers next to electric bells. Imitation flowers in the window and glass fruit on the table. Fireplaces without flues: (that cosy look comes from an electric-coal fire). Kalamein bronze. Mahogany doors of steel; mahogany doors of birch; birch of pressed wood-fibre. 'Parge' work. 'Fresco' painting. Felt fire-axes. . . ."

It appears from Mr. Churchill's article that in those days such substitutions were frowned upon, possibly because of the imperfection of the processes of imitation, possibly because of the tendency of the public to make comparisons with the real. Today, when the real no longer exists in the building trades, imitation in itself is perfection, and comparisons cannot be made. It would be as ridiculous for a man today to think of comparing his Fiberite, pressed mahoganoid, semi-vitreous, age-proof, self-opening front door, with a piece of mahogany, as to compare a can of paté de foie gras expansion entrée tablets with a piece of calf's liver.

During the past year, 1949-1950, several new additions were made to the thousands of Class A Substitutes sponsored by the National Association. The object of the present report is briefly to enumerate and describe these, with a short comment on each.

Cheese-Crete Air-Proof Mottled Tilettes. A super-standard imitation made by the Brie-Rind Condensing Co. Tilette wall construction avoids necessity for damp-proofing, stuccoing, plastering, or perfuming. Saves 4 minor operations and one major, usually fatal.

Interlocking Fibrous Garbage-blocks (Creosoted). Utilization of a former waste product. Chicken and meat-bone aggregate, gelatinous binder, tin-can reinforcing. Delivered to job with sanitary wrapping; hardens on exposure to air. Sets in 24 hours. Indigestible.

Jellibriques and Jellislate. For inserts in walls and roofing where light is needed but æsthetic treatment precludes windows. A transparent product made of cellulose, liquified mica and jellied consommé.

Bookpulp (Carneglibrary By-Product Co.) A plastic material made of literary débris from public libraries; pulverized, soaked in solution of synthetic water, and colored. Cost varies according to author.

Newspaperpulp. Made similarly to above but more expensive since daily papers were superseded in 1937 by visa-radio journals. Made mostly of financial reports, ticker-tape, insurance advertisements, and *Wall Street Herald*. Not durable; liable to drop off; but satisfactory for speculative houses and suburban developments.

Brussels Carpetflote. A floor-filler and softener. Sprayed on finished cheese-crete floors with special "Little Giant Air-brush"; makes a soft, fleecy, resilient floor, about one-half inch thick, any color desired.

Tapestry Stipple. A fresco paint made of the white of Fatu-Liva's eggs, for painting imitation tapestries. Four grades: Beauvais, Gobelins, Flanders, and Bronx.

Pinkham's Slipsicoat Plasteroil (Decomposed aura and essence of castor-beans). A preparation for concealing wood or stonework in old houses. May be applied directly to any natural product from marble to mahogany, to imitate the imitations now on the market.

Charco-slate, in two forms. One, a charcoal-creosote product made to imitate slate, and produced in variegated color-blends. The other, a mastic, adhesive granulated product for spraying over old slate roofs to hide the natural material. May also be used on old tile-work to imitate the modern Slatile Roofing.

The above products stand out as the principal new materials placed on the market during the year 1949-1950, through the work of the National Association of Substituters. The Committee on Imitations has been recently conducting experiments with a substitute for structural steel, but as this is confidential nothing will be said about it at the present time.

One paragraph in the Committee's report, however, should be noted in closing. It seems that a great deal of opposition has been encountered by the Association, from the architectural profession. This is particularly true among the older members, some of whom have been in practice since 1920 or even earlier. These reactionaries and realists would eliminate the use of imitations entirely, arguing that Truth at all cost is the prerequisite of Beauty, or some such rot. It is only necessary to point out to them the work of a few of their own beloved Italian Renaissance masters to show the fallacy of this; and furthermore, to recall to them that even among the Greeks the triglyph and guttae forms were developed in imitation of wood construction. But still they are not satisfied, and they greatly hamper us in our work, sometimes even refusing to specify our products merely on the ground that they are imitations! However, the big real estate operators are with us, and the speculative builders are with us, and most of the small home owners are coming around to the use of our products, so the architects are bound to follow suit sooner or later.

It has been calculated that in ten years the use of stone or wood in buildings will be entirely obsolete, and that these materials will be used in the future entirely for the creation of cliffs, forests, and natural scenery. If our opponents in the architectural profession wish to gratify their whims for Truth, let them aid in the design of natural scenery and in the re-building of our landscapes; in the design of trees and flowers and rocks and earth and water; and then they may call upon us to furnish the materials for the execution of their designs. The National Association is prepared to imitate nature itself on a scale greater and grander than ever, and in a way that will entirely eliminate the shortcomings and imperfections of the present products thereof.

Scenic Vistas. Finest Italian, Spanish, Riviera, and Southern California landscapes, on Prospectoscope slides, for throwing on whitewashed walls of city flats. Better than natural scenery; made up from illustrations in 1927 Tourist Agency Catalogues.

Black Searchlights. For de-luminating competitor's advertising signs. Recommended also for concealing certain architectural details on buildings being photographed for publication. May be used to "kill" adjacent buildings in imitation of architectural renderings.

Psychological Conference-Room Machinery. Complete equipment may be installed behind imitation book-backs, to give sound of two or more typewriters, intermittent telephone bell-ringing, scraping of drafting-stools, and testing of materials with hammer. Extra audiphone attachment to give effect of voices, with special records imitating swearing of specification-writer or sub-contractors. Excellent for use during first conference with prospective client.

Quarter-scale Fixture-stamps. Also ornament and detail-stamps (The Vitru-Vignola Repeating Co.) Excellent time-saver for plan-factories. Description unnecessary. Send for catalog, showing also cuts of capitals, friezes, vases, lions, and wrought-iron stamps.

Structural Wall-roll (Superspective Paper Co.) Beamed or coffered ceilings to fit any room; panelled wainscots; bookcases full of complete editions of the classics. Also, the same with printed imitation of Plasteroil covering or book-pulp trim.

Tuxedo Drafting-Smocks (Reversible). For commuters desiring to attend social functions without turning private office into boudoir. Computed by efficiency engineers to add 17.348% to production-rate of drafting-room personnel.

New Books:—

"How to Do Art," Horatio deVere Pliny, $1.98.

"The Ethics of Plagiarism" (Reprint), $0.90.

"Georgian Architecture in California" (Hollywood edition), $5.

"Gothic Steel" (Pugin and Bessemer), $4.50.

"Building Code, 1950" (Twelve volumes), $1,200.00.

GERALD LYNTON KAUFMAN.

The Architect's House in Order

"The Royal Institute of British Architects and the Association of Architects have been considering their professional problems, and believe that the pressure of unskilled or half-trained practitioners is troublesome. The Secretary of the Society of Architects has followed this up by suggesting a compulsory scheme of architectural training followed by statutory registration. The members of open professions naturally look with jealous eyes on those who have a strict control over their entrance gates, and it is always possible to appeal to the public on the menace of the quack. But quackery is easier to abuse than to define, and the public, who feel that the doctors have carried professional organization to very stiff limits, may reasonably wonder whether the syndicalist tendencies of the professions are altogether a common advantage.

"The architects, however, who want to set their house in order on stricter lines, have arguments in their favour which do not apply elsewhere. Architecture is essentially a social matter, and the unqualified and unskilled architect may be doing something far worse than misuse his clients' money. He may be inflicting lasting damage on a site, marring an otherwise harmonious street, or undoing the good work previously done by colleagues with some vision. If a patient suffers at the hands of a quack doctor he suffers alone, but a self-styled master builder who is not a master of his craft may cause far wider distress. Architecture, which depends so much on neighbourly relations in design, is everybody's business, and the public have the strongest possible interest in being served by a competent body of architects. We have had our country defaced by the jerry-builder, and one way of saving ourselves from his future ravages is to strengthen the status of the architect and make it impossible for a builder to employ a self-styled architect who has, in fact, no claim to that title. One often sees new houses being advertised as 'architect-built,' and there should be some guarantee that this phrase has a genuine meaning, and that it is not an idle trimming for a tawdry brick-box.

"There can, of course, be no guarantee that the tighter organization of a profession ensures its efficiency, and a qualified man may produce work of no quality. None the less, it is a matter of high importance that the conscienceless builder should not be able to justify his activities by working under cover of a tame architect who is independent of his professional standards. The outlawing of supposed quacks is admittedly a dangerous policy in the arts, but the architect's position is peculiar and demands most careful public attention."—*Manchester Guardian.*

Competitions

Messrs. Lord & Taylor, Fifth Avenue, New York City, announce a competition under the auspices of the Art Directors Club, for a design, painted or modeled, that will pictorially interpret the spirit of the business founded in 1826. There are five prizes running from 1,000 to 100 dollars. The competition is open to artists without distinction. Particulars may be had by addressing the Centennial Contest Department, Lord & Taylor.

Appropriations for State Buildings

The JOURNAL, in a recent issue, mentioned the proposed legislation in the State of Connecticut in reference to the appointment of an architectural commission to function in the ascertainment of costs as a condition precedent to appropriation of state funds for state buildings.

The bill, introduced by the Hon. Seth Low Pierrepont of Ridgefield, Connecticut, fairly covered the proper relation of architects to the state. Out of this bill there came a substitute which was enacted into law. A commission is set up consisting of the Governor of the state, *ex officio,* and five others. This commission is required to report to each session of the legislature the condition of every state building, except public schools, and the condition of every building where state money is supplied for activities housed in such building. It shall also report on the necessity of extensions to buildings owned by the state or housing activities partially supported by the state.

The usual process adopted by state legislatures is to make an appropriation for building construction without any sure knowledge of ultimate cost. In the State of New York such appropriations run for a period of two

years. If the appropriation is not used in that period it lapses until a new appropriation is made by the legislature, work stopping pending such event. An appropriation for a building which will cost millions of dollars to complete may be any small sum. Thus future appropriations become necessary to save the original investment. This procedure might lead to the state's becoming involved in an indefinite liability. The legislators in many states cannot know the amount of the actual commitment and it is not their fault.

Connecticut has sought to establish costs before appropriation. If honestly administered, the statute will lead not only to good business practice but will also serve to maintain state buildings in substantial repair. Mr. Pierrepont has certainly rendered a service to his state.

W. P. B.

From Our Book Shelf

Decoration

Mr. Hatton has put forth a comprehensive discussion of the principles that underlie decorative composition, especially in line and color.[1] His book is profusely illustrated with outline drawings which, in his preface, the author declares to be somewhat ineffectual in their uncolored state and which he leaves the reader to color. These drawings or designs are drawn, as he explains, in his own manner, without reference to historic or stylistic periods. The author's avowed purpose in writing the book is to stimulate the decorator "to approach his work with the triple intention of making it vivacious and effective, intellectual and interesting, and to proceed as if no decoration had ever existed before."

The book is clear and succinct in statement and should accomplish the task set for it by its author. The philosophy presented is of a nature to stimulate thought, if not to excite discussion. It covers such questions as the purpose of decoration, the difference between pure beauty and true beauty, between emotional ideas and cogent or intellectual ones, melody, scale, proportion in decoration, realism, objectivism, and "color and vitality." It discusses also the social considerations affecting the art of decoration.

The author propounds many interesting theories and makes many strong assertions. He says: "Our only hope of improving our taste lies in adding to our store of experiences the observation, in troubled moments, of things which we have reason to believe are good." He affirms that "the study of the nude figure is the surest grounding in taste," and that "of course a solid geometrical form is really stupid—solidified notion is an affront to the intelligence." Again he offers this: "Art is very real, it has much to do with actually being alive and being happy."

The reader will lay the book down with the feeling that his ideas on decoration have been both stimulated and coördinated.

W. R. GREELEY.

[1] *Principles of Decoration.* By R. H. Hatton. Scribner's. New York.

Very Careless Indeed

About 1901, I think, Senator McMillan began actively to push the L'Enfant plan for Washington. I remember some pictures that then were made and published, and it must have been about that time that Mr. H. V. Lanchester began to think of the idea of writing a book on town planning. For, in the present volume by him,[1] I find what I take to be a reproduction of a print of the 1901 vintage of the Lincoln Memorial propaganda, which he must have carefully saved. Perhaps Mr. Lanchester doesn't know that the building is now completed. Perhaps the English publishers think that in books intended for American consumption the vintage of the illustrations doesn't matter. Perhaps the American publishers never see an English book until they put it on this market. One might pass over the incident without minding, were it not that two other illustrations of New York City are of a rather ancient vintage as well, and are atrocious pieces of printing. If the other illustrations of contemporaneous cities had no more consideration than these, the reader familiar with his United States might well inquire how careless a piece of editing we are likely to put up with.

The type page is excellent, and would be a pleasure to read had Mr. Lanchester not imposed so rigid a curb on his emotions. Once in a while one gathers that he may be going to let go, but it's always a false hope, and the end is a cloud of pedagogy. Scarcely a word is breathed of the real causes of our modern ills, and while an excellent case is made for the technique of planning and the Coketown of "Hard Times" is cited as a piece of penny dreadfulism, we are led to suppose that our major sin is that "we have allowed the false economy of measuring by price values to take the bit between its teeth . . . one of these days, this criterion, of price values regardless of the other factors, will be generally pronounced an invalid one." Until that time we may occupy sites very intensively, up to 500 feet, perhaps, and so on, although such a scheme has its dangers, and so on.

It's pretty dry stuff. It adds nothing to the literature of the study of population increase and what to do. Even the major economic factors governing Letchworth and Welwyn are carefully omitted. There is nothing even resembling a comprehensive history of the later stages of the English housing muddle, although Mr. Lanchester intimates that housing is fundamental to town planning. We rather fancy that remaking old towns in India has not taught Mr. Lanchester very much about what is actually happening in the western world.

S. I. R.

Architecture Abroad

The *Studio Year-Book of Decorative Art*[2] for 1924 has come to hand. This annual publication, including as it does examples of Exteriors, Interiors, Decorative Schemes, Gardens, Statuary, Glass Ware, Embroidery and so on, offers a splendid opportunity approximately to gauge the progress (or decadence) of Art in these Piping Times of alleged Peace.

[1] *The Art of Town Planning.* By H. V. Lanchester. Scribner's, New York. 1925.

[2] *Studio Year-Book of Decorative Art,* for 1924. The "Studio," Leicester Square, London.

FROM OUR BOOK SHELF

It is a matter of great regret to the present reviewer that the Editor of this Year-Book has felt that the term "Art" might be stretched to include the modern expressions of the Teutonic and Austro-Teutonic "minds"—but this, of course, is by the way.

This year's Year-Book makes one a bit "home-sick," with its charming British houses and its comfortable homely interiors. The few selections from the work of American Architects are particularly happy, although the few (but nevertheless too numerous) selections from Vienna and Berlin are deplorably sad. There is some fine furniture from England, some exquisite glassware from Paris and a marvelous radiator screen in wrought iron from the same "Ville Lumière." The section illustrating Gardens and Garden accessories is particularly interesting, and the Editor of this section has actually found in modern Germany something *almost* beautiful.

The examination of this Year-Book helps to remind one (among other things), that, in spite of a decided retrogression in most worth while things, America is producing Architecture that is decidedly as good as any—and much better than most. H. F. C.

Little Houses for Town and Country

Of course a Small House is a very little thing in the lives of the Great (or near-Great), but isn't a Good Small House just about the Biggest Thing an Architect can do, after all?

And, to ruminate some more—we don't at all approve of mere copying. But it would be fine indeed if more of our American Brethen of the pencil and brush would—and could—copy the subtle spirit of Domesticity that finds such frequent and charming expression in the Small Houses of England.

Some of us may not "like" the English—some of us, who have had ancestors with tombstones in the walls of English Cathedrals, may appreciate the "stolid Briton"—but all of us that have souls must LOVE the little English house, with its almost unfailing air of complete comfort and charm.

Mr. R. Randal Phillips, Hon. A.R.I.B.A., has made a good little book[1] in which a few good Small Houses (and one or two not quite so good) are shown with photographs and plans. There are some Kitchens in which all modern conveniences appear, but so successfully Camouflaged as to make one yearn for a job as scullery lad, just to be near the Kitchen.

And in those photographs that show any landscape, the houses fit so well into what Nature has already built. Do we remember often enough, one wonders, really to make the "Punishment fit the Crime," or, in other words, to make the house complement and complete its natural setting? H. F. C.

Old English Furniture

There are so many, many books on Furniture—and so very, very few that show anybody anything that anybody can remember any length of time. The little volume we have beside us for review (*Old English Furniture—Division* 1, *Oak Period*—1500 *to* 1630), is quite different. It was obviously made, not to keep the Printers busy, not to fill book trays at Christmas time, not as so many "books" are made, for no apparent reason at all—but, really to present correct information in suitable quantity and in a form that makes the information readily accessible. The book, which is announced as the first of a series, is by J. T. Garside, Lecturer on the History of Furniture and Decoration at the Polytechnic in London, and is published by Batsford. About one-half the book is devoted to illustrations and short descriptions of typical pieces of furniture of the various types needed and used in a completely furnished house of the period treated, and the other half of the book is devoted to line drawings of the various details that occur in the typical work of the period, each one accompanied by a brief descriptive note. There is a quantity of material in the pages, and it is arranged in the sequence of its development. Most of the illustrations are in line, in order (to use the writer's words) to give "definition and emphasis, and to show constructive qualities of design rather than mere pictorial effect." This little book should prove very useful, not only to the furniture designer and the decorator, but to the Architect as well, who *should*, of course, know—even if he does not himself design—what he requires the furniture designer and the decorator to furnish for his houses. It promises well for the balance of the proposed series. H. F. C.

Lithographical

Mr. Samuel Chamberlain is a consummate draughtsman. Of that there is, I trow, no shadow of doubt. His pencil has hewn him a path, in a very short space of time, to an eminence seldom so quickly gained. In his lithographs[1] he has sought a new medium. He has even had the rare courage to invade the very stronghold of lithography—the one-time *milieu* of Isabey, Raffet, Delacroix, Gericault, and a host of other *maitres de la lithographie,* and he now gives us the fruits of his daring in a series of lithographs, eighteen of which deal with *vieux Paris;* the nineteenth is of the famous old house at Chartres and the twentieth is of Rouen. To estimate the measure of his success in this new medium requires a nice perception of values, for the whole process of lithography, while remaining technically unchanged, still lacks certain of the essential elements that made Isabey's *"L'Eglise St. Jean à Thiers,"* or Bonington's *"Rouen,"* or Daumier's *"Transnonnain,"* or Delacroix's *"Lion de l'Atlas," maîtresses lithographes.* Paper and ink are not what they were in Senefelder's day. The modern lithographer can hardly hope to catch the exquisite tonal effects of the process that captured the imagination of every artist in France in that lithographic heyday of the thirties.

For all of that, Mr. Chamberlain's *"Porte St. Martin"* comes near to yielding all that this facile technique has to offer—light and color, movement and fancy, all ex-

[1] *Small Family Houses.* By R. Randal Phillips, Hon. A.R.I.B.A. Scribner's, New York.

[1] *Twenty Lithographs of Old Paris.* Printed by Hand in Paris. 13x20. By Samuel V. Chamberlain. Helburn, New York.

pressible in terms of the simple greasy crayon, and the wet stone. This is also true of the *"Rue de la Montagne"* and the *"Rue de la Bucherie."* For the others one cannot quite say as much. The draughtsmanship is superb, but the full freedom of the medium has not been realized. As an indication of the possibilities that Mr. Chamberlain will some day realize, these twenty lithographs are far more than worth while. The lover of architectural draughtsmanship, especially if he have a warm corner in his heart for the flavor of old Paris, will get a real joy out of their contemplation. C. H. W.

A Famous Architect

The sixth volume in the *Masters of Architecture* is on Sir John Soane, by H. J. Birnstingl.[1] To Americans there is an especial interest in the architecture of England which found its expression in this country. The very last of the Jacobean coincided with a time when this country was in no position to build with even a suggestion of prosperity, and the 17th century houses, which in their timbering and leaded casements reflected the Jacobean, were very simple affairs. It is not until the end of Wren's time (St. Paul's was finished in 1725) that English styles began to be seen here in works of some importance. From then on American architecture reflected each phase of the English.

Sir John Soane was born in 1753 when the Colonial work, following a period of dignified and restrained classic beauty, was at its high level; he lived through the Adam period which affected our houses of the early 1800's, and up to the time of Greek and Gothic revivals about 1830, when they also met and clashed so fiercely. Soane died in 1837, an old man of 84.

One thinks of Soane chiefly in connection with the Bank of England, a very typical English building, ingenious, irregular in plan and yet skillfully adapted to the plot, picturesque and yet formal and balanced.

One regrets that in these volumes no plans are published, for often, as in this case, the building cannot be understood without the plan, and Soane's ability shows nowhere more clearly than in his handling of this plan. The Bank was not a new building when Soane took it in hand, so that he was further hampered by the existing work, and the fine result was all the more to his credit. One is glad to know that, in the rebuilding which is now under way, the exterior will remain practically intact, and that many of the rooms, although taken down, will be rebuilt as they were before. The rebuilding takes out the heart of the Bank and replaces it with a different plan, with the courts and areas differently disposed, so as to gain all available floor space, and this interior portion is carried up very much higher than the present building. The new work sets back sufficiently from the old façades to be inconspicuous except from a distance. This, however, is a departure from Sir John Soane.

Mr. Birnstingl's essay is a remarkably interesting review of the transition from the Classic orders, as seen through the eyes of the Italian Renaissance, the Classic of Palladio, and the Classic drawn from the original sources, which so firmly based the design of the day on the Temple architecture of Greece and Rome. In this country we had its echo in wood, when every other building, whether public or private, was a little Parthenon. The four volumes of Stuart and Revett's *Antiquities of Athens* were published in 1762, 1787, 1794 and 1816, the last coinciding with the transportation to London of the Elgin Marbles. This marks a distinct period in English architecture.

Soane's career was very remarkable in that he appears to have made at least a moderate fortune, with nothing to start on, and with no large amount of profitable work to his credit. How he did it, Mr. Birnstingl does not explain. He was the son of a master bricklayer, not, one fancies, quite the kind of man who goes under that name today, but in any event, not one to give his son a fortune. Soane came to London in 1768, and was articled to George Dance and Henry Holland, and the gold medal he won for the design of a bridge could not have contributed much to his support. One loves Mr. Birnstingl's description of Soane's bridge; it applies to so many magnificent designs which are the products of our schools. "It was an interesting architectural composition, with enclosed courts, rotundas and the like, but it lacked all the essential qualities of a bridge." It did, however, win him a "pension" or as we now say a scholarship for three years' study abroad.

He spent most of this time in Rome, where he worked industriously, and on his return, filled to overbrimming with the ideas which had inspired his triumphal bridge, he continued to dream dreams, few of which were embodied in permanent form. Of this Mr. Birnstingl says: "Although the actual number of buildings which he executed is not especially great, and today but a few of them remain, his output of thoughts, ideas, and designs on paper was immense, and certain large schemes, which never materialized, occupied him, on and off, throughout his life. The Triumphal Bridge was one, a Royal Palace was another, for Buckingham House had not then been converted to a royal palace, and Soane's scheme was for a mighty palace near Hyde Park Corner. But he seems, in these designs, to have felt Rome about him much as Piranesi did, for he was impressed with the piled-up paraphernalia of the empire, with its urns and its vases, with its tripods and its candelabra, with its rich and nightmare confusion of fragments and ornament; many of these he flung into these vast unexecuted schemes with an unrestrained profusion, as if his mind were seething and turgid with the piled-up splendor of antiquity. His love of collecting fragments, *objets d'art*, and his fondness of metal work—not wrought iron of the eighteenth century, but the bronzes of Pompeii and Herculaneum—is another manifestation of this same outlook. But, although such massed opulence is, in the hands of Piranesi, fit subjective matter for an imaginative etching, it is, nevertheless, for the most part, unfit for interpretation into an objective art such as architecture, and most of these giant compositions would have required severe pruning of much of their restless embellishments before they could have desirably been projected into three dimensions."

[1] *Sir John Soane.* By H. J. Birnstingl. Scribner's, New York.

One sees that already he had begun his collection of *objets d'art,* now in the Soane Museum, and yet was more occupied in large schemes than in actual construction, and one wonders how he did it. With such a training and such a temperament it is extraordinary how he could produce work which was generally restrained, structurally sound, and well planned and executed. One sees in this the son of the master brick-mason, an hereditary influence outweighing his environment. In the demolition going on now at the Bank the present architect offered me the other day one of the terra cotta pots which Soane designed and used in the vaults to lighten them and prevent condensation.

His life work, the Bank of England, began in 1788 and continued until 1833. Of this Mr. Birnstingl says, "The nucleus of the present structure had been erected by George Sampson in 1736, and between 1766 and 1786 Sir Robert Taylor had added two wings. All this imposed restrictions. The site, too, was irregular in shape, and a difference of level existed between the surrounding streets; moreover, the building and the rebuilding, for some of Taylor's work had to be destroyed, was considered only little by little as the work advanced. The building of St. Paul's Cathedral extended over thirty-five years, but the design was conceived as a whole, and no consideration was ultimately given to the old church. The building of the Bank of England extended over forty-five years; old buildings had not only to be considered but also to be incorporated, and circumstances demanded that the design should be evolved piecemeal. Yet, despite these difficulties, an extremely fine, although by no means faultless, building has been produced."

To my mind the Bank is an unquestionably fine piece of work. Without, it is simple, well-founded classic design, with marked individuality; within, it is the frank acceptance of the fact that interiors are different from exteriors and should be treated on that principle. It is customary, in this country, to belittle English architecture, but here is an example of a problem, of extreme complexity and difficulty, worked out to a practical solution, which has served the purpose for which it was built for nearly 100 years without any fundamental changes. This is true architecture and great architecture as well.

Perhaps they had learned, since the niggardly treatment of Wren a hundred years before, that architects ought to be paid like bank presidents (those who build big banks here are so paid now); in any case, this work was Soane's *pièce de résistance* and such fortune as he had must have come largely from this. He built for himself the house in Lincoln Inn Fields, now the Soane Museum, and another at Ealing. He must have been prosperous to do this.

After Mr. Birnstingl's clever description of Soane's Memorial Bridge, it is delightful to find that when Soane has a real bridge to build he can do such a beautiful piece of work as the bridge at Tyringham.

The closing tribute to Soane one may quote in full, for it sums up the whole: "Many are the vicissitudes through which English architecture has passed, but looking back now through the prolonged vista of time the work of Sir John Soane stands out clearly and beautifully, for the principles which guided him are those upon which all great architecture is based. And although certain small idiosyncrasies may irritate, with his work the whole is always immeasurably greater than the part. And the capacity to coördinate which the years bring enables him to be rightly placed as the first modern English architect. For that which distinguishes modern architecture arises from enhanced self-consciousness, from the powers of adaptation and of reasoning-powers acting as often to its detriment as to its good. And these qualities Soane possessed."

R. Clipston Sturgis.

Unfrequented

For those who like sailing a boat and mousing about in adventurous exploration of strange lands, where architecture is of the vernacular truly and where life is slow and still and quiet and picturesque, one might follow in the path of Mr. Henry Reynolds.[1] His story is a good deal about details, winds and tides, the two 'ometers, and such, yet the picture of Brittany and the Coast of Spain, with their towns and villages and the inevitable fishermen is not without a considerable charm. Vigo, Santona, Portugalete, Bilboa, La Pallice, La Trinité, Concarneau, and Camaret, are some of the places that fell in Mr. Reynold's way, and it is quite astonishing how the interest of the reader is held in spite of the sometimes trifling references to things about boating, of which the usual lay reader wots not. And one finishes by sighing to go there! S. I. R.

Shells

Mr. Spender's method of combining the account of a famous old house[2] with the history of a notable man who was intimately connected with it is a well devised one. It gives greater interest, both to the houses, which are not always of great merit in themselves, and to the men, who are not all notable in any heroic sense.

It is something for a house to have been Hampden's home, and something, (though it would be hard to say just what) for it to have been praised by Walpole. It is something for a man to have been born at Stowe, or to have beggared himself by the purchase of a Gregories.

"I have endeavored to envisage Men in the framework of the Mansions they have inhabited," says Mr. Spender, and truly he has accomplished his endeavor with much success. He knows a good anecdote, he has a proper taste for a legend, and his appreciations of the buildings are generally just. In short the book is a pleasant and entertaining one. The illustrations might well have been a little finer, but that is a small matter.

The direct comparison between these houses and the men who once occupied them weakens one's faith in the doctrine that architecture is an expression of character and sentiment. It is hard to see anything in common between the loveliness of Audley End and the character of the scoundrel who earned the bloodmoney to build it by the slaughter of the saintly and the helpless, or to

[1] *In Spanish Waters.* By Henry Reynolds. Hurst and Blacket, London.

[2] *Men and Mansions.* By Harold Spender. Thornton Butterworth, London, 1924.

reconcile the gentle dignity of Nuneham Courtenay with the callous heart of him who tore down the ancient seat of his ancestors to get stone for it.

"By their fruits ye shall know them," says the publisher's imprint on the title page.

Perhaps after all the men with whom these mansions should be linked, if we are to understand them rightly, are not the great ones whose temporary tenancy of them, here recorded, is only an incident in their history, but a race of kindlier, nobler souls, craftsmen and artists long nameless, who created them in love, and to their own image and likeness. F. P. S.

Old Wines in New Bottles and New Wines in Old

Whoever picks up *Spanish and Portuguese Gardens*[1] needs to be strong. I think it is the heaviest book of its size that ever was made, and if not, then the holders of this priceless record must be all of a tremble. It seems inexcusable to put so much effort onto coated paper of the weightiest kind. The pictorial result is excellent, of course, but the handling of the book is tiresome to the point of weariness.

The author went to the Iberian Peninsula frankly on a voyage of discovery. She wanted to find old gardens, and she did. From this reader's point of view, she has a *flair* for them and he confesses his thanks that her adventure included the island of Majorca. The Rectory at San Lorenzo has a charm that is often lacking in the more formal surroundings of gardens, and makes us remember that there was a time when the garden was the expression of a true reverence of the life process. It had besides a religious significance—its ancient Oriental name was "paradise." There is much of great interest in the chapter which makes a good historical approach to gardens, and throughout the book there are pictures of pools, wells, and fountains that set one dreaming indeed.

There is an excellent list of garden references at the end and the book has so much merit that it is a pity indeed that its format is so illy chosen. By comparison, the two volumes of Mr. Crisp[2] are indeed a lesson. Here the illustrations are carefully segregated and the volumes, although containing well over two hundred illustrations each, are neither awkward nor tiresome to hold. And what a piece of scholarship on the part of a busy London solicitor who has patiently traced the mediæval attitude toward gardens as expressed in painting and illuminated manuscripts. The lover of gardens may not here find "planting suggestions," but he will find a story about gardens only to be equalled, in many ways, by the *Gardens of the Great Mughals*. And we who used to admire the amusing concepts of gardens in the early paintings of the Dutch and Flemish schools—the strange Holy Lands and the queer Jerusalems and Gethsemanes—will yield our full measure of pleasure and satisfaction to the rare scholarship in these two volumes. They cannot fail to delight anyone who is truly sympathetic to the great period which they cover in so unusual and so thorough a manner.

It isn't a far cry to turn from these to a rare wine, though not quite so old, perhaps, as lurks in the pages of Mr. Di Nardo's[1] illustrations, excellently chosen as to subject, well photographed and finely reproduced. The format is large, but not tiresome, and there is a pleasant preface by Professor Paul P. Cret, who again calls our attention to the essential difference between these old wines that had the charm of personality and a reasoned and sustained vernacular expression, and the modern building that can never support the weight of centuries, and never give any great pleasure to anyone concerned in it, except the pleasure of pecuniary gain. The evidence of this is to turn to a book on the American house[2] where architects have essayed, generally in vain, to put new wines into old bottles. It is unfortunate, perhaps, that such a book falls to the reviewer in such a group, for it suffers precisely in respect to those differences that Mr. Cret has so well cited. Only a few of the houses look pleasant to live in. Most of them have a self-conscious air, as though they were on parade, —which probably many of them are, and it is not at all strange, after journeying in France with Mr. di Nardo, that we do not get much enjoyment out of an American journey conducted by Mr. Keefe. And also, curiously enough, the book belies its title very seriously, for it is divided into parts, entitled: Colonial Houses, Georgian Houses, Italian Houses, Spanish Houses, French Houses, and English Houses. Is that as far as the American house has got? We do not think so. The type of house illustrated is generally the luxurious plaything of the more fortunate beneficiaries of American life, and does not in any sense represent the American house, if one there be in this era of dwindling space and the flight into apartments. S. I. R.

Hidden Bits of Spain

Miss King holds a professorship of the history of art at Bryn Mawr, and is a prolific writer on her subject. Much of her work has been on Spain, where she has made very comprehensive journeys of study, following in the footsteps of the regretted George Edmund Street and Vincente Lampérez. To the latter scholar and to Manuel Gómez-Moreno, the *Pre-Romanesque Churches*[3] owes a considerable debt, gracefully acknowledged. The author has done very much more, however, than to turn their facts and language into English, for she has a very personal style of seeing, feeling, and interpreting. Her manner of writing sometimes irritates those who most admire the purely encyclopædic type of archæological book. Miss King's books are not that; although her facts are copious and orthodox, a certain color in her touch makes them more readable than one expects from the subject matter.

[1] *Spanish and Portugese Gardens.* By Rose Standish Nichols. Houghton, Mifflin & Co.

[2] *Medieval Gardens.* By Sir Frank Crisp. 2 vols. John Lane.

[1] *Farm Houses, Small Chateaux and Country Churches in France.* By Antonio Di Nardo. Preface by Paul P. Cret. Photography by C. D. Arnold and A. Di Nardo.

[2] *The American House.* By Charles L. Keefe. U. P. C. Book Co. 1924.

[3] *Pre-Romanesque Churches of Spain.* By Georgiana Goddard King (Bryn Mawr Notes and Monographs, VII). Bryn Mawr College, and Longmans, Green and Company, 1924.

The thirty-odd structures considered in this book are all small churches; most of them are remote, many of them are uncouth, and only a few offer a thrill for any one but an architectural explorer, but they are a great part of what we have left to represent three very interesting phases of Spanish history—the Visigothic period (twilight of Imperial times), the early Reconquest, and the Mozarabic. They date from the seventh to the eleventh centuries, and form perhaps the finest group which remains to us in western Europe from that unhappy period. Now that the old theory of the French invention of Romanesque architecture is being attacked in the light of new studies made in Western Asia, these little churches have acquired importance on account of the eastern influence they so patently show in many of their architectural forms.

Rivoria, Lampérez, and Dieulafoy, even in their general works, did not begrudge a detailed description of one of the early churches, S. Juan de Baños. The conclusion of a spirited archæological battle seems to be that we have here a church founded in 661 by Receswinth, one of the Visigothic kings who dedicated the celebrated Guerrazar votive crowns now in the Cluny Museum, Paris. The stout colonnade and the horseshoe arches of S. Juan do a good deal to make that shadowy dynasty seem real and to give us an idea of what the architecture of their transient Kingdom was like. The little Christian kingdom which started to push southward about 800, eventually to overcome the Moors and expand into the Americas, had also, in its early period, a national style of which respectable examples have come down to us. Its greatest shrines, Oviedo and Santiago, have long since made way for more ambitious structures, but others remain. Various in type, all have an unmistakably Eastern stamp, and all possess an oddly accomplished air mingled strangely with barbaric feeling. One of them, Santullano de los Prados, near Oviedo, has copious traces of painted decoration in the Pompeian style (a discussion of which is unfortunately omitted in Miss King's book); others, including the beautiful Sta. María de Naranco (dated 848) are completely vaulted. S. Salvador of Val de Dios (dated 893), of the basilican plan as modified in Syria, has an almost Gothic tallness of proportion, and the builder placed above its daring clerestory a barrel vault which has now been in place more than a thousand years, while its south porch has grouped piers and a banded barrel vault which anticipate typical Romanesque work. This quaint and adventurous art, which has about it so much of the calmness and solidity of the lovely hills where it grew up, was crushed out by the invading Romanesque of the Pilgrimage, as was the Mozarabic with its delicate and perverse arcading of horseshoe form and its ensembles of simple, yet enigmatic beauty.

Such are the buildings of which Miss King's book treats. If one were to venture unfavorable criticism, it might be said that the rather wasteful marginal borders make it typographically necessary to group the notes (inconveniently, to my mind) at the ends of the chapters. Nor do the plates—which, by the way, number fifty-one—come opportunely in relation to the text. The plans, reproduced mostly from Lampérez, are relegated to the back pages. They would have appeared to much better advantage if they had been redrawn in a uniform style and at a uniform scale; the coarseness of the work here, with its crude graphic scales, is particularly noticeable in contrast with the fastidious character of the body of the volume. But much may be forgiven an interesting book with a full bibliography, a good index, and well-contrived special maps.

K. J. C.

Great News from Chicago

Under the heading *To Reduce Building Costs,* the Chicago *Tribune* prints the following editorial:

"Lathers in Evanston are getting $20 a day and plasterers in Chicago won't go to work for less than $18 and maybe not then. Some journeymen in the building trades work only a few days a week and draw down $100 or more. The figures come from the Committee to enforce the Landis award and may be somewhat exaggerated; but there is no question that building labor is at a premium. There is no question, either, about who pays the high wages. It is the man whose building is under construction.

"That being so, it is well to remind those about to engage in building enterprises that one way to avoid excessive costs is to reduce the amount of manual labor to a minimum. Great savings can generally be made, for example, on plastering. Custom has decreed plaster finishing for parts of buildings in which it is a luxury if not sheer waste. Architects are inclined to specify such costly and unnecessary details partly from habit and partly because the architect receives as his fee a percentage of the entire cost of the building. Thus the more the building costs, the more the architect receives.

"It is bad business to skimp a building, but it is good business to avoid wasteful expenditure. A careful study of his plans with a view to eliminating non-essential items will repay the building owner for the time he spends at his task."

Well, seldom does a careless and casual statement appear so imbued with the wisdom of Solomon and yet, on analysis, dissolve into such ignorance. Who pays the cost of building? The owner? Not at all, society as a whole, and until society as a whole understands the miscalled labor problem, building costs are likely to increase as they have been doing for years. And the saving to the owner is to be made by having him study the architect's plans that he may cut out the waste the architect puts in in order to raise his fee. Just so. How simple!

Now it is undeniable that the percentage fee has the defect of encouraging such specious reasoning, in this case seemingly prompted by devotion to some other interest. But the architects who guard their client as they would their own life and property are too numerous to mention. They can be discovered by the simple process of looking for them carefully. There are plenty of them in Chicago, and there is an ample distribution of them all over the United States. The man who chooses any other kind has only himself to blame.

What is the *Tribune* trying to accomplish?

Letters to the Editor

The Small House

TO THE EDITOR OF THE JOURNAL:

I have read carefully, in the August number of THE JOURNAL, the Note by the Editor, Article by Mr. Arthur C. Holden, letter of "G. W. R.," page 316 of the JOURNAL, and the letter of Mr. J. Randolph Wilts. All bear on the subject of the Institute's position in regard to the A. S. H. S. Bureau. The letter of Mr. Wilts is of special interest when considered in connection with page 316[1] and by those who hold that architecture is a profession and that the Institute ever tries to keep it that and superior to and distinct from business enterprise.

Page 316 is interesting. Is it an advertisement? Is it part of the Bureau discussion? Has it been approved by the Institute? G. W. R., an acknowledged proponent of the Bureau, expresses the hope we all hold—that we may see a statement of the intent of the Bureau and a report of its results.

What, resembling such a statement or such a report, is in the article of Mr. Holden? Eliminate all historical reference, his personal expression of approval both of proponents and of the Bureau, ridicule or worse of opponents, denunciation of the profession, his review of some of the facts quite generally known and there remains an outstanding truth—his signature—but neither a direct word as to the present intent of the Bureau nor anything like a report of its accomplishments since the Institute sponsored it. Perhaps Mr. Holden is wise in this in that with his article in hand opponents have nothing to shoot at and must shut up or venture a direct attack on an established, organized incorporation that has secured Institute approval.

"It is practically a nonprofit-making public service," I quote a Bureau advertisement in the Detroit *Free Press* when it offers for sale plans unlawful in Michigan under the Housing Law of Michigan. "As a branch of American Institute of Architects . . ." is also to be found in that same advertisement. Some building commodity is offered for sale by the concerns with their "something for nothing" book of plans. What has the Bureau to offer for sale so that it may continue to live? No business is in operation for pleasure only. If the Bureau is a benevolent public service, why copyright its work? How will it live? As the Institute acknowledges a moral sponsorship it cannot avoid financial support if the Bureau files declaration in bankruptcy or legal responsibility if that same Bureau be hailed into court on a charge of using the U. S. mails to defraud. You know and I know that those using the product of any concern pay the overhead and a profit. That is right and strictly business. The cost of producing plans and specifications and of advertising them is a part of the overhead of every material concern with its book of plans used to sell the product. Sale of that product is the object of each such concern. What is the Bureau object? Without something to sell and on which it can make a profit there is no practical way for the Bureau to make money if its "nonprofit-making" propaganda be not intended to deceive.

Since the approval of the Bureau has become generally known it is next to impossible to secure even a hearing when advocating anything ethical or professional or even artistic when coupled with the name of the Institute.

THOMAS ERNEST WHITE.

[1] This refers to the announcement of a competition for the design of a small house conducted by Miss Marcia Mead, A.I.A., for *McCall's Magazine* and published as news matter only. We understand that the Institute Committee on Competitions did not approve the competition because it did not believe that it had jurisdiction, although, informally, we were advised that there seemed to be no reason why Institute members should not enter the competition if they were so minded. We believe that the subject of educational competitions of this nature is now under consideration by the committee.—EDITOR.

Competitions and Architecture

TO THE EDITOR OF THE JOURNAL:

Far be it from me to answer Mr. J. Randolph Wilt's impassioned letter in the August JOURNAL about Competitions in general and the Roosevelt Memorial in particular, but he raises certain ghosts which should be laid in the interest of a better understanding.

In a limited reading I find nothing about competition codes or their equivalent in the great epochs of architecture. Score one for Mr. Wilts! But again, a hasty survey of existing monuments and memorials—yea, and those of ancient fame—discloses naught of the rather metaphysical concept of "associative ideas" toward which he strives. Score for the Competition Code! For in the monuments of Menkara, Mausolus, Albert, Victor Emmanuel, George Washington or Lincoln, I find no true, deft and unescapable embodiment of the qualities which we associate with the individuals.

As to the responsibility of the Institute through its Competition Code for selecting architects of ability, Mr. Wilts would choose an architect by some method "which will have for its object the liberation of genius toward the advancement of architecture." He says that he desires to choose an architect, not a building. The phrase "liberation of genius" makes me think of other competitions (for I know little of the one in question) and of the hopeful mind of owners toward the thing called genius, looking for a revelation to surprise them with "just the thing" they want but cannot coherently ask for. Is it to the eclectic or to the man in the street that Mr. Wilts desires to express in architecture the character of Theodore Roosevelt? Is architecture "capable of setting forth the difference between a naturalist and a statesman"? Capable, perhaps, but, does it, today? I think not, and thereby come into disagreement with Mr. Wilts who says he thinks it does. Is it not that he means he thinks it should ——?

In the world today, as I see it, the economic use of space and of the methods and materials of building controls the great output of architecture. If this is true, then we cannot do much good for the cause of beauty by seeking in some sporadic case to express metaphysical ideas for the *cognoscenti*. The point of view of the genius is of far less importance than that of the observer. And the observer is the owner. Competitions are planned for architecture rather than for architects and follow a standardized form and result in averages which in their completion express the public average taste. In the rare case the genius flowers out because it cannot be kept in. The Nebraska Capitol competition was won on honest solution of needs and conditions that existed, and after that came the "associative ideas," flowering out from a genius that could not be denied its day.

The public will get its own reflection in its architecture and the choice of an architect for a special darling project is better made by direct selection based upon achievement than by an average competition.

Desiring to choose a painter for your portrait, would you invite a half-dozen artists to submit sketches?

DELOS H. SMITH.

Structural Service Department

LEROY E. KERN, *Technical Secretary*

In connection with the work of the Committee on Structural Service of the American Institute of Architects and in collaboration with other professional societies and organized bodies having the same objective—improvement in building materials and methods and better shelter for humanity in all its manifold vocations and avocations

Termites in Wood Destruction

There is an important field for active coöperation between entomologists and architects in the protection of buildings and their contents from damage by our native termites or "white ants."

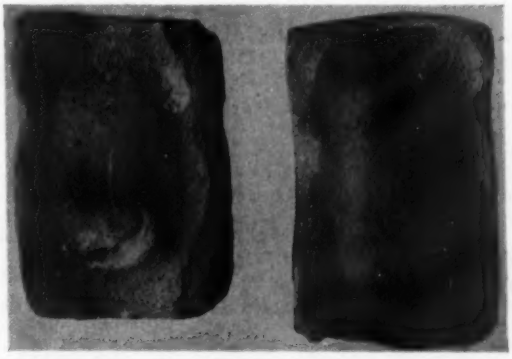
Due to lack of information on the destructiveness of termites and their wide distribution, throughout the United States, buildings are often erected with untreated woodwork in contact with the ground, in which these insects live.

In consequence termites burrow into this wood and may greatly damage the woodwork of the building before their presence is detected. It is a great hardship for a man on a moderate salary to make a large initial outlay on a new house and, after one or two years, be forced to expend several hundred dollars additional in reconstruction to eliminate the termites.

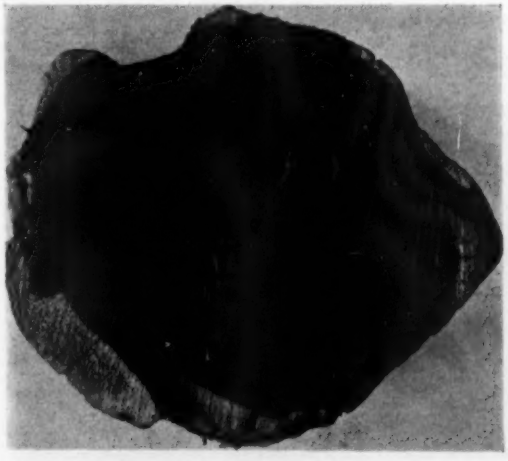
The only effective permanent preventive and remedy is proper construction with the knowledge of the habits of termites and the specific that will eliminate them, *i.e.*, "insulation" of all untreated woodwork from contact with the ground; it can be accomplished by the use of stones or concrete foundations and lower flooring or the use of foundation timbers impregnated with coal tar creosote. Practically all the termites which damage buildings in the United States are of subterranean habit and if they can be kept from reaching woodwork from the ground they cannot survive in the building. If present in a building when all untreated wood is removed from contact with the ground, such as joists, wooden floors, sills, etc., even if the termites have penetrated to the third story of the building, they will die out. They have been cut off from their moisture supply in the ground, which is necessary for their life.

Recently the Bureau of Entomology has been advocating the modification of the building regulations of various cities so as to include a few simple rules to prevent attack by these insects. No floors, sills, beams, clapboard, etc., of untreated wood may be laid on or in the earth, and untreated beams must not be laid in concrete without at least one inch of concrete underneath and separating it from the earth. No lime mortar should be used in foundations or in cellar walls where they are in contact with the earth, since termites are able to penetrate lime mortar after some years' service. All brick work extending below the surface of the ground should be faced and capped with concrete at least one inch thick. These slight modifications of the building regulations of cities by city engineers would save much property, time and worry to householders.

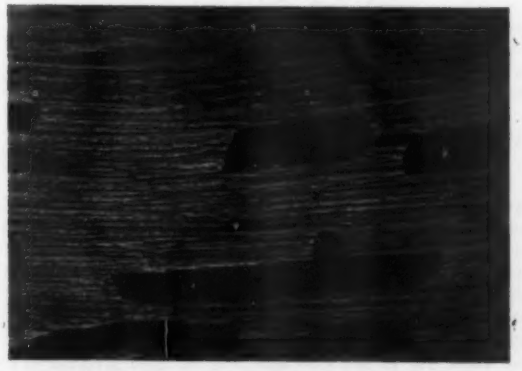
The recommendation of the use of heat, steam, insecticides and fumigants against these subterranean termites is of no permanent value and is futile. If conditions in a building are unsuitable to termites they will leave; if they can be prevented from leaving or coming in again by shutting



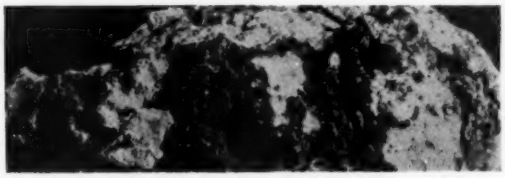
Brick of soft red sand hollowed out by a wasp from the wall of a building.



Large holes bored in cedar log by the carpenter bee (*Xylocopa sp.*). Such damage occurs in woodwork of buildings.



Damage to timber by large, black carpenter ants (*Camponotus sp.*).



Concrete work disintegrated and bored into by a termite (*Croptotermus sp.*).

them off from the ground, nothing further need be done and indeed is only a waste of time and money.

Complete insulation of all untreated woodwork from the ground is the only effective method of preventing the ravages of termites in buildings in the United States.

U. S. Bureau of Entomology. T. E. SNYDER.

U. S. Government Master Specification for Asphalt Prepared Roofing (12b21). (*Circular of the Bureau of Standards No.* 192. *Federal Specifications Board Standard Specification No.* 214. *Officially promulgated* 30 *Sept.*, 1924. *Pages* 5. *Size* 7" x 10".) Classes. This asphalt prepared roofing shall be furnished in two weights—medium and heavy, as specified in the order, proposal, or contract.

Material and Workmanship. This asphalt prepared roofing shall be composed of rag roofing felt saturated and coated on both sides with asphaltic compounds and surfaced with finely powdered talc or mica, which must prevent sticking in the rolls.

Detail Requirements. (a) *Appearance.* The surface shall be smooth or finely veined in appearance. Deeply ribbed roofing will not be acceptable. The coating shall be uniformly applied on both sides and up to the edge of the sheet, and no uncoated spots or defects, such as blisters, or large lumps of coating, shall be perceptible.

(b) *Width and Area of Roll.* Width 32 or 36 inches plus or minus one-fourth inch. Area, not less than 108, or 216 square feet, as specified in order.

(c) *Average Gross Weight per* 108 *Square Feet.* Medium, 45 pounds; heavy, 55 pounds.

(d) *Weight per Roll of Wrapping, Packing, Nails, and Cement*—Maximum 3 pounds.

(e) *Weight per* 108 *Square Feet of Roofing, Exclusive of Wrappings, Packings, Nails and Cement*—

	MEDIUM	HEAVY
Average weight per 108 square feet ...	42 lbs.	52
Minimum weight per 108 square feet...	39.0 lbs.	48.3

How the "pine sawyer" ravages white pine building lumber.

(f) *Pliability at* 77° *F.* No cracking shall occur on bending through an arc of 180° over a two-fifths inch mandrel.

(g) *Behavior on Heating at* 176°. No sliding, blistering, or absorption of the surface coating shall occur.

(h) *Minimum Weight of Moisture—Free, Desaturated Felt Per* 108 *Square Feet.* Medium 10.8 pounds; heavy, 13.5 pounds.

(i) *Thickness of Desaturated Felt.* Minimum: Medium, 0.048 inch; heavy 0.060 inch.

(j) *Ash of Desaturated Felt.* Maximum 10 per cent.

(k) *Saturation of Felt.* Minimum: Medium, 130 per cent; heavy 140 per cent. The sheet of felt shall be thoroughly and uniformly saturated.

(l) *Weight of Mineral Surfacing and Mineral Matter in Coating* 108 *Square Feet.* Maximum, 3 pounds.

(m) *Nails.* The gauge of the wire shall be 10 to 12 inclusive; the heads shall be not less than three-eights inch in diameter and not less than 0.025 inch thick. The shank shall be between three-fourths and 1 inch long, and its lower end pointed. The nails shall be zinc coated.

Not less than an average of 250 nails shall be furnished for each 108 square feet of 36-inch roofing and not less than an average of 275 nails per 108 square feet of 32-inch roofing.

(n) *Lap Cement.* The lap cement shall be of such nature as to firmly bind the laps without injurious effect upon the roofing. It shall consist of asphalt or coal-tar pitch dissolved in a volatile solvent. Three-fourths of the pint per 108 square feet shall be furnished for 36-inch roofing and 1 pint per 108 square feet for 32-inch roofing.

Note: The specifications also include instructions for Inspection and Packing and Marking.

Carbon Monoxide Hazards from House Heaters Burning Natural Gas (29f4). (*Department of the Interior, Bureau of Mines. Technical Paper* 337. *By G. W. Jones, L. B. Berger and W. F. Holbrook. Pages* 31. *Size* 6" x 9". *Illustrated.*) Although this paper covers only heaters burning natural gas, yet persons who use artificial gas may find this paper valuable. The heaters were tested just as supplied by the manufacturers, without any adjustment. The tests were made in a closed room without ventilation. The gas used was burned at different rates of flow and each heater burned until the flames were extinguished by the lack of oxygen in the room. The tests represent conditions more dangerous than ordinarily found in a closed room in a house, because in the latter some air is always moving through the walls or around doors and windows.

The following types of heaters were tested:

Type 1—Lava-tip, yellow-flame heater. No primary air is admitted to the gas before it reaches the burner, which consists of a pipe with holes drilled along one side at about 2" intervals. Into these holes are screwed lava-tips. The gas burns with a characteristic yellow flame.

Type 2—Metal-inclosed blue flame heater with adjustable primary air inlet.

Type 3—Asbestos back yellow blue flame heater, with a fixed primary air supply and metal and mica guard in front. This type is similar to the burner used in fire places. The burner consists of a cylindrical metal tube, 2" in diameter, having a series of small holes along the top from which the gas issues. The flame impinges on an upright asbestos reflector back of the cylindrical tube. A small amount of primary air is drawn in with the gas stream. The asbestos reflector is heated very hot by the flame and radiates into the room a part of the heat. Across the

front of the heater is a flame guard consisting of a metal lattice work with mica windows.

Type 4—Cylindrical, blue-flame bathroom heater, protected on outside by perforated metal shield.

Type 5—Radiant, nonluminous flame heater with adjustable orifice for gas and fixed primary air supply.

Type 6—Blue-flame radiator heater whose combustion products pass through an absorbent before liberation.

Conclusions (1) The quantity of carbon monoxide that accumulated in a closed room of 1,000 cubic feet capacity, when natural-gas heaters were burned until the flames were extinguished, ranged from zero to the exceedingly dangerous concentration of 1.72 per cent.

(2) In general, the liberation of carbon monoxide by natural-gas heaters may be due to one or more of several causes, such as (a) supplying the heaters with too much gas; (b) not supplying the flame with air enough for complete combustion; (c) faulty construction of the heaters; or (d) allowing the flame to impinge on metal or other surfaces so that it is chilled below the ignition point.

(3) As the proportion of oxygen in the air supplied the heater diminishes, the rate of liberation of carbon monoxide remains fairly constant until the oxygen content nears the point at which the flames are extinguished: then the rate of liberation rapidly increases.

(4) A "free-burning" flame—whether luminous, blue or nonluminous—if supplied with an ample quantity of oxygen does not produce appreciable quantities of carbon monoxide. A "free-burning flame" is one that does not burn in contact with metal or other surfaces.

(5) Lava-tip yellow flame heaters, burning so that the flame does not come in contact with a metallic surface, do not produce carbon monoxide in appreciable quantities.

(6) Heaters of this type should not be permitted to burn so that the flame touches metal surfaces. If the burner is twisted or turned so that the flame impinges on a metal surface, dangerous quantities of carbon monoxide are produced and connection to a flue becomes absolutely necessary.

(7) Heaters of this type should be protected from drafts, which cause the flame to come in contact with the metal reflecting surfaces and thus give off carbon monoxide. Nor should one of these heaters be supplied with so much gas that the flames roar or extend outside the heater.

(8) Heaters of the metal-inclosed blue-flame type burning under proper conditions do not produce detectable quantities of carbon monoxide. The gas flow should not be increased so that the flame extends through the holes of the inside metal grid surrounding the burner, because carbon monoxide is produced in this way.

(9) Asbestos-back yellow-blue flame heaters having solid metal guards in front of the flame produce dangerous quantities of carbon monoxide and should be connected to a flue when in use. If such heaters are used without a guard the liberation of carbon monoxide is greatly reduced.

(10) Radiant nonluminous-flame heaters, when operated so that the radiants glow only three-fourths of the length from the bottom to the top and when adjusted so as to entrain eight or more volumes of primary air, can be safely used without a flue in a well-ventilated room. If the heater is so operated that the radiants glow the entire length, or is so adjusted that the amount of primary air is small, it should be connected to a flue.

(11) Tests of a heater provided with a canister containing a chemical to remove noxious gases did not show that the use of the canister had any appreciable effect on the liberation of carbon monoxide or carbon dioxide, but they did show that the canister removed the greater part of the "gas fumes" or "aldehyde odors."

(12) Guards should not be put around a heater unless adjusted to a proper distance from the burner and provided with plenty of openings through which air may be easily drawn into the flame.

(13) Heaters should be so constructed that an ample supply of secondary air is drawn into the flame to insure complete combustion. Natural gas should not be burned in any device in which proper arrangement is not made for the admission of secondary air.

(14) The most essential point in the design of the heater is to insure that the heater burns the gas completely to carbon dioxide and water vapor.

(15) When a heater is connected to a flue, a large part of the heat liberated by the combustion of the gas goes up the flue and so is lost.

To keep this loss of heat at a minimum level, there should be a damper in the flue; after the heater is lighted the damper should be gradually closed until the products of combustion move slowly into the flue—a matter that can be determined by watching the flame of a piece of burning paper placed near the flue or by blowing tobacco smoke into the space above the flame and noting whether the smoke is drawn into the flue or comes out into the room. Another method of saving a large part of the heat usually lost up the chimney is to use a longer flue connection with several bends in it, and thus enable the hot gases from the flame to liberate much of their heat into the room before they reach the chimney.

(16) Gas fumes or aldehyde odors in a room in which a natural-gas heater is burning may or may not indicate the presence of carbon monoxide. Heaters burning with a yellow flame and at a lower temperature may liberate gas fumes but produce very little carbon monoxide; on the other hand, heaters burning gas at a high temperature may give off very slight odors and yet liberate carbon monoxide. Tests showed that when the gas fumes were not detectable by smell carbon monoxide was not given off in quantities dangerous to health and safety; a slight or distinct odor may indicate danger with one type of heater and not with another. A strong odor is evidence that enough carbon monoxide may be present to cause death in a very short time.

(17) A natural-gas heater should never be used in a room in which a person is sleeping unless the heater is connected to a flue or one or more windows are open.

Wrought Iron and Sheet Pipe (29d). (*Resolution adopted by the National Association of Master Plumbers of the United States in Convention, 25 June, 1924.* That owing to the fact the "Wrought Pipe" is a misleading term used to designate welded pipe made from either steel or puddled iron, and because considerable confusion and unfair competition has existed due to the failure of architects, engineers and purchasers to distinguish between these two kinds of pipe when making out orders:

Therefore be it Resolved: that architects, engineers and purchasers should designate both kinds of pipe by their proper name, viz:

(a) "Steel" pipe—black or galvanized.

(b) "Wrought iron" pipe—black or galvanized.

Wall Plaster: Its Ingredients, Preparation and Properties (21a). (*Circular of the National Bureau of Standards No.* 151. *Pages* 66. *Size* 7" x 11".) Contents: Introduction. Furring. Preparation of a masonry wall to receive plaster. Lath. Plastering materials. Properties of the wet mix. Mixing and application. Properties of the hardened plaster. Decorative features. Types and causes of defects. The kind of materials to select. Reference.

GRANADA—THE CASA CASTRIL, ON THE DARRO
Louis La Beaume